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The Inland Seed Co

Giant
Golden
Bantam
Idaho
Grown

See Description
Inside

1920

SPOKANE
WASHINGTON



1920-A Happy New Year-1920

We invite a very careful perusal of this entire catalogue as it is the most valuable one that has been issued by any seed house between St. Paul and the Coast.

It Contains 128 Pages

and is full of very

Valuable Information On

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Quality and Service

We are firm believers in both, and are ready to give 100%
Quality and 100% Service.

Free Information Bureau

In order to better serve our patrons and the public, we have established the above bureau and desire to emphasize that any questions asked, or information sought, will receive careful and prompt attention, and will be answered by one of our experts in so far as our knowledge and investigation can give the desired information.

When You Order

Write name and address plainly

Give postoffice and shipping point

Include prepaid charges if necessary

Figure postage correctly

All orders strictly cash

Plants not sent C. O. D.

If you want your order insured send additional remittance.

Ten cents will insure any order less than fifty dollars

THE INLAND SEED CO., Spokane, Wash.

For Three Successive Years

Mr. and Mrs. A. J. King of E. 3917 Thirty-second Ave., Spokane, Wash., have won the Twohy cup for having the best garden in Spokane. They used THE INLAND SEED COMPANY'S seeds exclusively.

Undoubtedly Mr. and Mrs. King are excellent gardeners, yet they confidently assert that the results obtained were due chiefly to the fact that the seeds they purchased from THE INLAND SEED CO. were produced from proper stock, thus transmitting fully matured, well developed seed of strong germination and viability.

Because of the many expressions of appreciation concerning our seeds and plants, we feel a just pride in the fact that they are giving almost universal satisfaction, and that our aim in handling only the very best seeds and plants obtainable has been realized.

WE REALIZE

that many people are very busy and do not wish to take the time to look through our catalogue to make their selections, as they are unfamiliar with the different varieties of seeds and wish to plant a practical back-yard garden of easily grown vegetables.

In order to introduce our seed to this class of trade we offer the following high-quality special collections.

With one of these assortments, and a fair outlay of energy a family can keep their table supplied with delicious, crisp vegetables during the entire season.

ASSORTMENT NO. 1, 50c

- | | |
|-------------------------|--------------------------|
| 1 Beet, Detroit. | 1 Onions, S. W. Globe. |
| 1 Carrot, D. H. Long. | 1 Parsley, Moss Curled. |
| 1 Corn, G. Bantam. | 1 Parsnip, Hollow Crown. |
| 1 Cucumber, Long Green. | 1 Radish, Scarlet Globe. |
| 1 Lettuce, New York. | 1 Radishes, W. Icicle. |
| 1 Lettuce, Prizehead. | 1 Turnip, P. Top Globe. |
| 1 Onion, Y. G. Danver. | |

ASSORTMENT NO. 2, \$1.00

- | | |
|---------------------------|---------------------------|
| 1 Beans, Golden Wax. | 1 Musk Melon, Rockyford. |
| 1 Beans, G. Stringless. | 1 Onion, Y. G. Danver. |
| 1 Beet, Detroit. | 1 Onion, S. W. Globe. |
| 1 Beet, Egyptian. | 1 Parsley, Mosscurled. |
| 1 Beet, Swiss Chard. | 1 Parsnip, Hollow Crown. |
| 1 Carrot, D. H. Long. | 1 Parsnip, Imp. Guernsey. |
| 1 Carrot, Ox Heart. | 1 Peas, Gradus. |
| 1 Corn, G. Bantam. | 1 Peas, Little Gem. |
| 1 Corn, E. Minnesota. | 1 Pumpkin, Sugar. |
| 1 Cucumber, Long Green. | 1 Radish, Black Spanish. |
| 1 Endive. | 1 Radish Scarlet Globe. |
| 1 Lettuce, New York. | 1 Radish, W. Icicle. |
| 1 Lettuce, Prizehead. | 1 Spinage, Long Standing. |
| 1 Lettuce, E. C. Simpson. | 1 Turnip, P. Top Globe. |

As these assortments will be already put up for shipment we can not make any changes or substitutions.

The Inland Seed Company
SPOKANE, WASH.

The Inland Seed Company's

1920 Seed Catalogue 1920

HOW TO HAVE A GOOD GARDEN

Garden Plan

Have a plan for your garden—drawn to scale on paper—before you start, to give proper order in planting and enable you to buy the right amount of seeds in advance while the selection is good.

Put in one general group small plants like beets, onions, lettuce, carrots, radishes and parsnips. In another general group put large plants like corn, tomatoes and potatoes. Spreading ground vines, like melons and cucumbers, which need wider spacing, should be put in another general group. The reason for this grouping is that the various plants in a group need similar general treatment as well as spacing.

Vary from Last Year's Plan

It is important to remember that plant diseases and insects are apt to thrive in a spot in which they have become established. For this reason those who make gardens should take care not to place the individual crops in the spot in which the same crops grew last year. Varying the arrangement of the garden in this way will reduce the danger from disease and insects. The same vegetables in the same place each year exhaust certain food elements, and reduced yields are sure to result.

Preparation of Soil

After the frost goes out test the ground by squeezing a handful of it. If it crumbles the soil is ready for spading. If it packs into a mud ball, the ground is still too wet and should not be worked.

Spade deeply, 8 to 15 inches, unless this latter depth turns up poor soil and buries the richer soil of the top. Pulverize the dirt deeply with hoe, spade and rake, breaking all clods on the surface. If a lawn roller is available it is useful for crushing clods. All vegetable growth on the surface, such as grass or weeds, should be turned under, to rot and enrich the soil. This is especially important with ground that has had a growth of turf.

Purchasing Seed

There was a great demand for all sorts of vegetable seeds the past two years, and it is expected that there will be an increased demand this year. Judging from the present outlook, there will be an abundance of seed of all varieties, excepting peas, to supply any reasonable demand. Yet it is always the best plan to purchase seeds early. This is a self-evident fact and should not be overlooked.

When to Plant

When heavy frosts are over, plant early peas, onion sets and seed, early potatoes, kale, lettuce and spinach. All of these will stand light freezing except potato plants, which should be protected when frost threatens.

When frosts are about over plant radishes, parsnips, carrots, beets, late peas and early sweet corn, and set out cabbage and cauliflower plants.

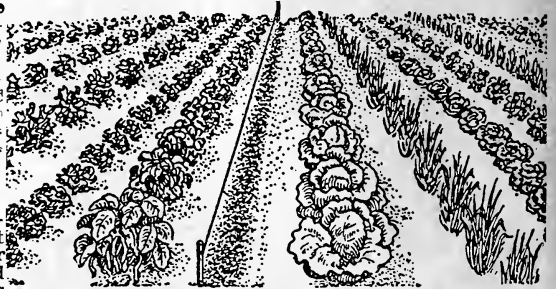
When all frosts are over and apple trees are in bud, plant string beans and late sweet corn, and set out a few early tomato plants from the indoor boxes.

When apple trees have finished blossoming plant cucumbers, melons, squashes, lima beans and set out the rest of the indoor plants.

Seed Beds

Plants for second crops may be raised in an outdoor seed bed occupying small space. These plants may be grown while the space allotted to them in the garden plan is still in use for earlier crops.

Laying Off Rows



Straight rows add to the garden's beauty and make cultivation easier.

Succession of Crops

Nature generously provides for more than one crop on the same soil. Vegetables which reach maturity early in the season should be followed by later crops of the same vegetable or by rotation of other kinds. Onions to be used green may be grown in rows which are to be occupied by late tomato plants, as a few of the onions may be removed to plant the tomatoes. Radishes mature early and as they are harvested the space may be used for cabbage, lettuce, cauliflower, Brussels sprouts and other plants. Many combinations of this kind may be made to good advantage.

Continuous Crops

With some of the important vegetables a series of planting is desirable. Of string-beans, lettuce, radishes, spinach, sweet corn, peas, beets and carrots there should be several successive plantings, about two weeks apart, to provide a fresh and continuous supply at all times.

Cultivation

When the green rows appear it is time to start hoeing or cultivating. Do not cultivate too deep, two or three inches is usually deep enough. Work the ground frequently and always after rain or watering, as soon as it is dry enough.

Watering

A plentiful supply of moisture is essential. If there is not sufficient rainfall the moisture should be provided by irrigation. In doing this it is better to soak the ground once a week than to water a little every day. Late afternoon or evening is the best time to sprinkle or irrigate.

DIRECTIONS FOR VEGETABLE GROWING

Asparagus

Use strong plants two years old. Set them 18 inches apart, in rows 3 feet apart. The rows should be 8 to 10 inches deep, with width of 6 to 8 inches at bottom. After spreading out roots cover crowns with 2 inches of soil. With the growth of the shoots gradually fill

in with earth until level with surface. Careful cultivation is required during the season. A small bed heavily manured will furnish plants for 2 or 3 persons.

Beans

Beans form a staple crop which may be raised in almost every climate. They need a rich soil which holds moisture, but is well drained. Frequent shallow cultivation must be given and they must be kept growing without a check until harvested. Never cultivate while moisture is on vines.

Beans are susceptible to cold and for sure results they should not be planted until danger of frost is past.

Beets

Sow seed rather thickly in row, using 1 oz. to 50 feet, but thin the young plants by pulling until the survivors are 4 inches apart. The pulled plants make fine greens for cooking or canning.

Brussels Sprouts

Grown like cabbage.

Cabbage

Set plants from indoor seed boxes or pots 15 inches apart in rows, the rows being 30 inches apart. Between these rows early lettuce, radishes, and other little crops may be planted. Early cabbage should be gathered as soon as it has formed solid heads. Late cabbage may be stored in trenches and covered with straw and earth.

Carrots

Sow seed $\frac{1}{2}$ inch deep, using $\frac{1}{4}$ ounce to 25 feet or row. Thin to 2 or 3 inches apart when roots crowd each other.

Cauliflower

Grown the same as cabbages, except when the heads form, the loose outer leaves should be tied together over the heads to keep out the light and bleach them.

Celery

Sow seed in seed boxes and set plants in garden in June or July, 6 inches apart, trenches 6 inches deep and 3 feet apart. Make the trenches 6 to 8 inches wide at the bottom so that rains will not wash the earth over the young plants. As the plants grow, cultivate the ground into the trenches. When plants are large heap earth around stalks to whiten them.

Celeriac

This is a large rooted form of celery. It is grown like celery, except that the plants do not need bleaching. The large root is cooked for use. The plants should be protected in freezing weather by straw or mulch (half-rotted manure and straw), and dug when needed.

Corn, Sweet

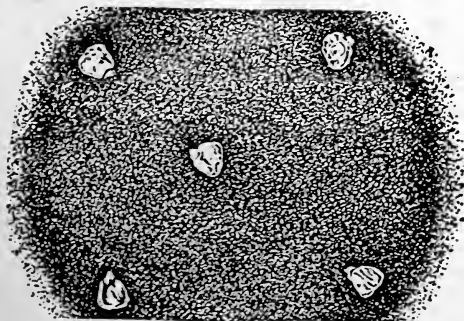


Fig. 18—Corn, planted properly in hill, at a depth of 2 inches and with corner kernels 3 inches apart.

CORN—Continued.

Plant 5 or 6 seed 1 inch deep in hills 3 feet apart. When plants are 4 inches high pull out all but 2 or 3 plants in each hill. Make new plantings every 2 weeks until July or August so as to have corn for use during the entire season.

Cucumbers

Plant 8 to 10 seed 1 inch deep in hills 4 feet apart. Later thin to 2 plants per hill. Do not plant until soil is warm and frosts are over. Hoe or cultivate only until plants start to vine, then pull weeds by hand.

Eggplant

Little plants from seed boxes are set 2 feet apart in rows 3 feet apart.

Endive

In midsummer sow seed $\frac{1}{2}$ -inch deep and later thin plants to 8 inches apart. To blanch hearts raise leaves and tie together over heart.

Kale

Sow seed $\frac{1}{2}$ -inch deep in rows 18 to 24 inches apart. Thin the plants until they are from 6 to 8 inches apart in the rows.

Kohlrabi

Sow seed $\frac{1}{2}$ -inch deep and later thin plants to 4 or 6 inches.

Lettuce

Sow seed $\frac{1}{2}$ -inch deep in rows 1 foot apart and later thin out until plants are 5 to 6 inches apart. There should be successive planting, but lettuce is not grown in extremely hot weather. Sow seed the last of August and in September to be transplanted to the cold frame in October.

Melons, Musk

Grown like cucumbers except hills must be 6 feet apart.

Melons, Water

Plant 1-inch deep, 8 or 10 seed to each hill, the hills 10 feet apart. Later thin to 2 plants to each hill.

Okra

Sow seeds when corn and beans are being planted. Sow 1 inch deep a few inches apart in rows 3 to 5 feet apart. Thin plants to 18 or 24 inches apart. Until plants are almost grown cultivate frequently and not very deeply.

Pick young pods every day to keep plant bearing.

Onions

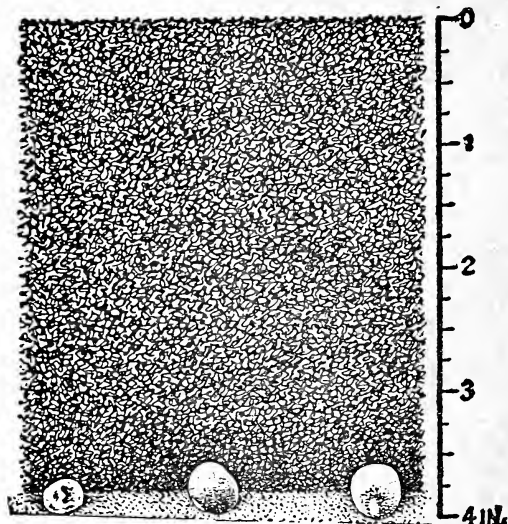
Onions will grow from seed or from bulbs, called sets. It is better to use sets in home gardens. For early green onions plant sets 3 inches apart in rows 1 foot or more apart. To grow from seed, plant the seed rather thickly $\frac{3}{4}$ of an inch deep in rows and thin them later until plants are 2 to 3 inches apart. If sets for planting next spring are desired, do not thin out any plants, but let them crowd so they will remain small.

Parsley

Sow seed thinly $\frac{1}{8}$ -inch deep, later thinning plants when they crowd each other.

Parsnips

Sow seed thinly $\frac{3}{4}$ of an inch deep in rows 18 to 24 inches apart and later thin plants to 3 inches apart.

Peas

Peas, planted properly, at depth of 4 inches.

An important factor in the successful raising of garden peas is that the smooth-seeded type are not easily damaged by light frost. Because of this they may be planted earlier than the wrinkled varieties—practically as soon as weather conditions permit preparation of the ground. They may be grown in almost any ordinary soil. The best soil is sandy loam, well drained, and rich with rotted manure. To give continuous supply throughout the growing season make successive plantings from one to two weeks apart.

Peas should be planted in trenches 4 inches deep, the seed being covered with 2 to 3 inches of soil. About half pound of seed will plant 100 feet of row. As the plants grow, gradually fill in the trench around them. Let the vines of the tall varieties grow up on brush or poultry wire. The rows of peas should be 3 to 4 feet apart, but if the space is small it is desirable to plant double rows 1 foot apart, placing the brush between these rows.

Peppers

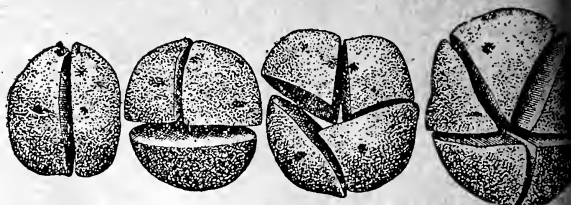
Set young plants from seed in row. Pepper plants are tender and should not be set out until the ground is warm.

Potatoes

As one of the staple needs of the household potatoes are entitled to special attention in Home and Community Gardening. In selecting for seed it is desirable to choose medium to large, smooth, shallow-eyed potatoes. The best seed will produce the best crop. Potatoes grow best in sandy loam or in a gravel loam.

Preparation of the soil should be done with care. The ground should be thoroughly broken up or pulverized, then thoroughly worked with a steel-toothed rake. This preparation is of great importance and should not be slighted.

Quality is our main objective not only in our seeds, but in every other item we handle.

Treat Seed for Scab

Properly cut seed potatoes. Each piece has two good eyes and is about the size of a hen's egg.

One of the most common diseases affecting seed potatoes is scab. This attacks the skin of the potato, causing it to thicken, and giving it a scabby appearance. It is carried through the winter, in soil, in manure and on the potatoes themselves. To control this affection it is important that potatoes should be rotated with other crops as to location, and the same soil not used for potatoes except at intervals of three or four years. A simple remedy, easily applied, is to soak the seed potatoes before planting, in a solution of Formalin and water. This solution is made of 1 ounce of Formalin (40 per cent formaldehyde), mixed in 2 gallons of water. In this mixture soak the uncut potatoes for two hours, and spread them out to dry. The solution can be used on as many lots of potatoes as desired.

Seed potatoes should be spread out in a room in which they will be exposed to strong light for two weeks before cutting, to start sprouts and detect poor seed.

Planting

For planting, prepare trenches or furrows from 3 to 5 inches deep and from 24 to 36 inches apart. Plant seed pieces 3 inches deep for early potatoes and 5 inches for late varieties. The seed pieces should be 14 to 18 inches apart in rows, the smaller the pieces the closer the planting.

Pumpkin

Plant in hills 8 to 10 feet apart, using 8 to 10 seed to a hill. Plant seed 1 inch deep. Later thin to 2 or 3 plants to hill.

Radishes

Planted and grown the same as carrots.

Rhubarb

Procure roots, as seed planting is not advised. Set them 3 to 4 feet apart. Use manure freely.

Salsify or Oyster Plant

Also called vegetable oyster. Grown like carrots. Plants must be thinned to 3 inches apart.

Spinach

Sow seed thickly 1-inch deep in rows 12 to 18 inches apart, for both early spring and fall crops.

Squash

Grown the same as cucumbers or muskmelon, except that the hills of Hubbard squash should be 7 to 9 feet apart.

Swiss Chard

Sow seed ½-inch deep. Thin out when necessary.

Tomatoes

Tomatoes form one of the favorite crops of the home garden, as they will grow in all types of soil. Sandy loam, with plenty of humus, is ideal for growing tomatoes.



Fig. 20—A tomato plant should be tied with a strip of cloth, at a height of 10 in. again at about 18 in. and again at about 26 in. The plant here pictured is a good one from which to save seed.

Plants suitable for setting out should be 4-6 inches high, having a thick stem and dark green leaves. Begin cultivation as soon as the plants are set. Cultivate deeply and close to plants at first but later cultivation should be more shallow to prevent injury to roots. Cultivate frequently to keep the soil loose over the surface, so preventing cultivate after a rain.

It is always advisable to train the plants to stakes or other supports.

To tie plant to support, loop the string around the support and tie it under a leaf stem. Remove all side branches at the axil of the leaves as soon as they appear. Do not remove flower clusters. When the plant has reached a height of 5 feet cut off the top.

When three or four clusters of fruit have formed and some of the fruit is as large as a silver dollar prune the leaves at the base one half. This hastens ripening.

Once a month apply a little commercial fertilizer or compost around each plant. Avoid the use of fresh or unrotted manure as this produces too much leaf growth, the fruit does not set and disease is encouraged.

Turnips

For early spring, plant $\frac{1}{4}$ -ounce of seed to 50 feet of row, sowing them $\frac{1}{2}$ -inch deep, in rows 1 foot or more apart. For fall crop $\frac{1}{4}$ -ounce of seed to 50 feet of row, $\frac{1}{4}$ -inch deep, or make the rows 8 to 10 inches wide and scatter seeds thinly in broad rows.

The foundation of a good crop is dependable seeds. Our seeds are all selected for their true worth and their adaptability to this section.

SEEDS

ARTICHOKE TUBERS

Planted and cultivated the same as potatoes. Of great value for feeding stock. They are the best hog feed known. They are remarkable for their fattening properties, and great productiveness. One lb., postpaid, 20c; at purchaser's expense, 50 lbs., \$2.00; 100 lbs., \$3.50.



ASPARAGUS SEED

CULTURE—Sow in early spring in rows; when one year old the roots may be taken up and transplanted in permanent beds, which should be made by taking out the soil to a depth of about 16 inches, fill in with six inches of well rotted stable manure, then 6 inches of soil, somewhat firmed, and place the roots on the same about 10 inches apart with the roots well spread out and cover

so that the crown will be about 4 inches below the surface.

PALMETTO—This variety is very desirable on account of its earliness, bright green color, presenting an attractive appearance, excellent flavor and productiveness. Pkt., 5c; oz., 15c; 2 oz., 25c; $\frac{1}{4}$ lb., 40c; $\frac{1}{2}$ lb., 60c; 1 lb., \$1.00.

Beans

It is a fact worth emphasizing that in order to secure the best results from seeds that the seeds themselves should be fully matured, well developed, of good germination, and capable of strong, vigorous growth. In order to secure these very essential and necessary qualities, we are having our wax and green podded bush varieties grown in Washington and Idaho, in localities especially suited to their growth and culture, by men who thoroughly understand the preparation of the ground, cultivation and harvesting of the crop.

This insures to us seed of the very best type and of the highest quality.

CULTURE—Beans should not be planted until the ground is warm, as cold and wet weather will cause the seed to rot. For garden culture plant four or five seeds in hills one foot apart, in rows 18 inches apart. For field culture, make the rows 3 or $3\frac{1}{2}$ feet apart, and cover with two inches mellow soil.

Bush, Wax Podded

All varieties of Wax Beans, 35c lb., postpaid; at purchaser's expense; 5 lbs., \$1.25; 10 lbs., \$2.25; 25 lbs., \$5.00; 50 lbs., \$9.00; 100 lbs., \$16.00.

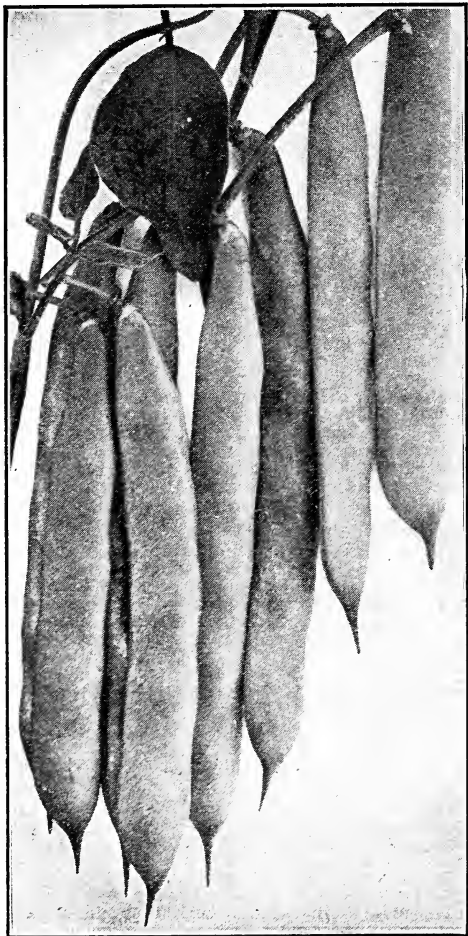
BLACK WAX, PROLIFIC—This improved strain of Black Wax we offer under this name is exceptionally productive, very hardy, reliable and of the best quality. It is very extensively used for snaps for the home garden and market. The plants are medium sized, erect in growth, with small foliage, very vigorous, early intermediate in season with longer bearing period than most sorts. The pods are of medium length, four and one-fourth to four and one-

BEANS—Continued

half inches, borne well up from the ground, curved, cylindrical and fleshy. They are of a clear, light golden yellow color and remain a long time in condition for use as snaps. Seed small, oblong, jet black.

DAVIS WAX—This is also called White Kidney Wax. It is a well known market sort, much used for shipping. The plants are very hardy and productive and the variety is very desirable where a handsome wax-podded, white seeded intermediate sort is wanted. The plants are very vigorous. The pods are remarkably long, about 6 inches, sometimes longer. They are handsome, light yellow, straight, very attractive and when young are crisp and tender. The dry beans are excellent for baking. Seed medium large, kidney shaped, clear white.

GOLDEN WAX IMPROVED—This is one of the earliest and best dwarf sorts for the home market and private gardens. The plants are erect, compact, and very productive. The pods are of medium length, four and one-half to five inches, nearly straight, broad, flat, golden yellow, very fleshy and wax-like. Seed medium sized, oval, white, more or less covered with two shades of purplish red. The amount and shade of color on this and all partially colored beans will be affected greatly by conditions of soil and ripening.

**Golden Wax**

WARDELL'S KIDNEY WAX—This standard variety maturing a little later than Golden Wax, yields a large crop of long, nearly straight, broad, light golden yellow, handsome pods. These are of large size, about six inches long, and are of good quality. They always command a ready sale, making the variety one of the most profitable for the market gardener as well as shipper. This is also very extensively used for snaps for the home garden. The plants are strong growing and bear their long pods well up from the ground. The leaves are large, broad and slightly roughened. Seed large, flattened, kidney shaped, white with dark markings about the eye.

All varieties of Wax Beans, 35c lb., postpaid; at purchaser's expense; 5 lbs., \$1.25; 10 lbs., \$2.25; 25 lbs., \$5.00; 50 lbs., \$9.50; 100 lbs., \$16.00.

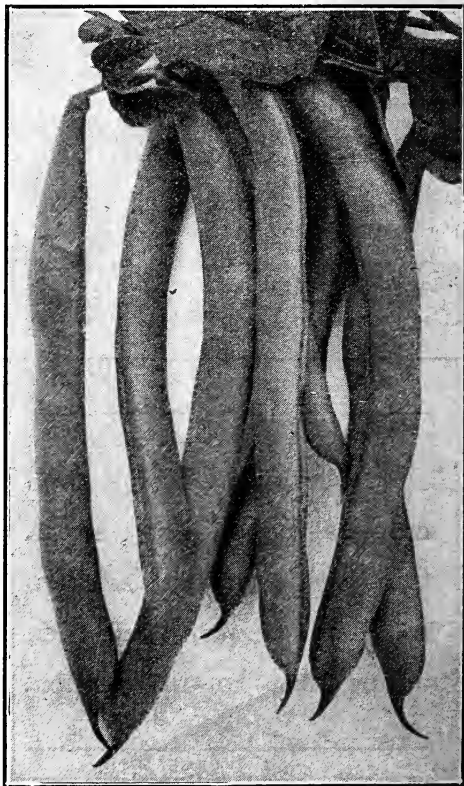
Bush, Green Podded

LONG YELLOW SIX WEEKS—The plants of this hardy variety are large, vigorous, erect and very productive. The leaves are large. The pods are long, about six inches, straight, flat, handsome, rather light green and when young are of good quality for snaps. Seed medium sized, long, kidney shaped, light yellow with small brownish circle about the eye. This is early maturing and a fine shipper. It is much used for the home garden and market.

Long Yellow Six Weeks.

1 lb., 30c, postpaid; at purchaser's expense, 5 lbs., \$1.15; 10 lbs., \$2.00; 25 lbs., \$4.50; 50 lbs., \$8.00; 100 lbs., \$15.00.

REFUGEE, EXTRA EARLY—A very early, green-podded variety, with medium-sized, green, fleshy pods; seed drab, freely spotted with dark purple. The vines are smaller and of more upright growth, and leaves a little larger than the late Refugee. The pods are round and make an attractive appearance when shipped to market. Their color is lighter than most of the green beans.

**Green Stringless.**

BEANS—Continued.

STRINGLESS, GREEN—Very desirable dwarf green podded snap sort for the home garden and largely grown for the market. The plants are large, spreading and productive. The pods are medium green, five to six inches long, cylindrical, and remain crisp and tender long.

Seed medium size and length, yellowish brown. Refugee and Stringless. Lb., 35c, postpaid; at purchaser's expense, 5 lbs., \$1.25; 10 lbs., \$2.25; 25 lbs., \$5.00; 50 lbs., \$9.00; 100 lbs., \$16.00.

Pole, Green Podded

Although Pole Beans require considerable care and labor, they are, when properly grown, usually of longer bearing period than the Dwarf sorts and are generally more productive.

DUTCH CASE KNIFE—The vines of this well-known green podded kidney bean for green shell use are of good climbing habit, but twining rather loosely and may be used for a corn hill sort of medium season. It is used for snaps when quite young. The leaves are large and crumpled. The pods are very long, seven to eight inches, flat, irregular, medium green, becoming lighter as they mature. Seed broad, kidney shaped, flat, clear white and of excellent quality whether used green or dry. Lb., 40c, postpaid; at purchaser's expense, 5 lbs., \$1.50; 10 lbs., \$2.75.



Kentucky Wonder.

KENTUCKY WONDER—Also known as Old Homestead. We believe this variety is the most practically useful of the green podded pole beans suitable for use as snaps. It is early, very prolific, with showy pods which are of most excellent quality. The vines are vigorous, climbing well, bearing pods in large clusters. The pods are medium light green, very long, often reaching 9 or 10 inches, curved and twisted, nearly round and very crisp when young, becoming very irregular and spongy as the beans ripen. Seed long, oval, slightly flattened, dun colored. One of the very best early pole snap beans for the home garden or market. Lb., 40c, postpaid; at purchaser's expense, 5 lbs., \$1.50; 10 lbs., \$2.75; 25 lbs., \$6.00; 50 lbs., \$10.00; 100 lbs., \$18.00.

LAZY WIFE—The pods are produced in large clusters in great abundance and are from four to five inches in length. Dark green, rather flat but broad, quite thick, fleshy, and entirely stringless, retaining their brittleness until fully developed; of unusually rich flavor. Lb., 40c, postpaid; at purchaser's expense, 5 lbs., \$1.50; 10 lbs., \$2.75; 25 lbs., \$6.75; 50 lbs., \$12.50; 100 lbs., \$24.00.

Pole, Wax Podded

KENTUCKY WONDER—Yellow podded, bears a large quantity of rich, golden-yellow pods from the time the plant is about half-grown until it is killed by frost in the fall. The plant makes a quick, healthy growth, and is exceedingly productive, bearing large pods, which are thick, meaty, stringless; very tender, and have a fine flavor when cooked. This variety is very popular, both for the home garden and for market. 1 lb., 45c, postpaid; at purchaser's expense, 5 lbs., \$1.75; 10 lbs., \$3.00; 25 lbs., \$6.75; 50 lbs., \$12.50; 100 lbs., \$22.50.

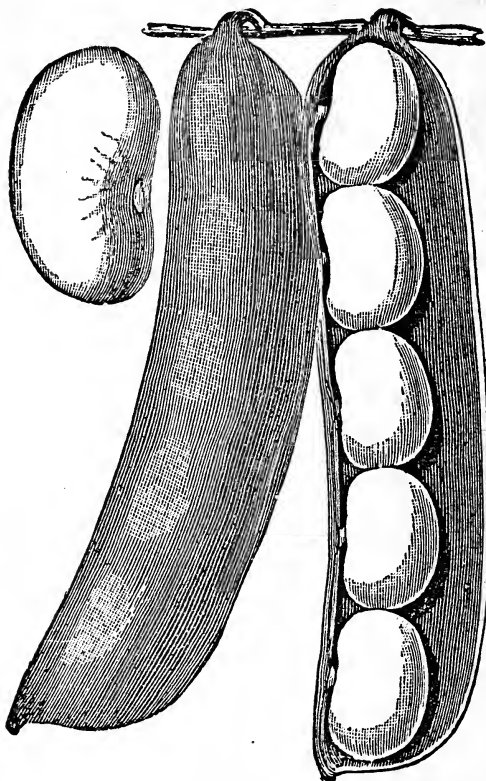
Shelled

DWARF HORTICULTURAL—One of the best dwarf sorts for green shell beans for the home garden and market and can be used early as a green podded snap bean. The plants are very productive, compact and upright, with large leaves. The mature pods are about five and one-half inches in length, broad and thick, curved, with splashes of bright red on a yellowish ground. They become fit for use as green shelled beans early and in this condition the beans are very large, easily shelled and are about equal to the Lima in quality. Seed large, oval, plump, pale buff splashed with deep red. Lb., 50c, postpaid; at purchaser's expense, lb., 40c; 5 lbs., \$1.75; 10 lbs., \$3.00.

BROAD WINDSOR—(*Vicia Faba*)—Sometimes called a tree bean because of its upright growth, bearing its pods at the axil of every leaf. It is sometimes called Horse Bean. Cooked as a shell bean it is very good for table use. Owing to the succulency of its stalk and its productiveness, there is nothing better to grow for healthy hog pasture, and owing to its propensity, for gathering nitrogen, it is one of the best soil renovators. Lb., 50c, postpaid; at purchaser's expense, lb., 40c; 5 lbs., \$1.75; 10 lbs., \$3.00.

Quality is our main objective not only in our seeds, but in every other item we handle.

BEANS—Continued.

Limas, Bush**Burpee's**

BURPEE'S—This is a little the earliest maturing of the large seeded Limas. The plants are vigorous and productive. The pods are medium green, very large, about five inches long, thick and usually contain four or five beans, which are unusually thick, of large, and usually shows a greenish white tinge. One of the best and most extensively used bush Limas for the market as well as home garden. 1 lb., 45c, postpaid; at purchaser's expense, 5 lbs., \$1.75; 10 lbs., \$3.25.

HENDERSON'S—A dwarf form of the Small White Lima, valuable on that account, and because of its extreme earliness, hardiness and productiveness. The plants are without runners but continue to grow and set pods until stopped by frost. The leaves are small and very dark green; flowers small, yellowish-white, borne in clusters and often above the foliage. The pods are medium dark green, short, about two and three-fourths inches, flat and contain two to four beans which are of excellent quality either green-shelled or dry. This is much used by canners, as well as for home and market garden use. Seed small, flat and white with slight tinge of yellow. 1 lb., 40c, postpaid; at purchaser's expense, 5 lbs., \$1.50; 10 lbs., \$2.75.

Limas, Pole

EARLY JERSEY—This variety is one of the earliest of the pole Limas. Pods are four inches in length and contain three and four large beans each. It is specially recommended for this northern latitude as it gives much better results than can be obtained from any of the other varieties, on account of its earliness and productiveness. 1 lb., 50c, postpaid; at purchaser's expense, 5 lbs., \$1.75; 10 lbs., \$3.50.

Ornamental

SCARLET RUNNER—Ornamental and useful. The vine is graceful. flowers are of a brilliant scarlet, and the beans are of an excellent quality, either when shelled or in a dry state. ¼ yb., 20c; ½ lb., 30c; 1 lb., 50c, postpaid; at purchaser's expense, 1 lb., 40c; 5 lbs., \$1.75; 10 lbs., \$3.00.

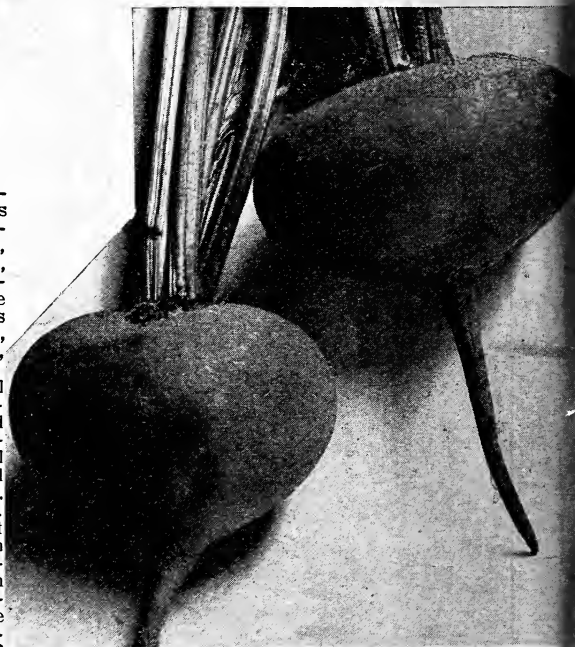
Field

NAVY—Write for prices, stating quantity wanted.

Beets

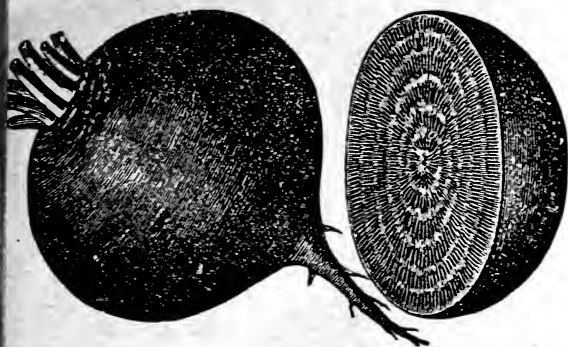
CULTURE—The soil should be deep, rich and mellow, plowed deep and harrowed until very fine. Drop about one inch deep in drills 12 to 18 inches apart, and when well up thin to four or six inches. The tops of the young beets can be used for greens.

All the different varieties of beets, unless otherwise quoted: Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 50c; 1 lb., 90c, postpaid; at purchaser's expense, 1 lb., 80c; 5 lbs., \$3.75; 10 lbs., \$7.00.

**Edmunds' Blood Turnip**

BLOOD TURNIP, EDMUNDS—An extra selected stock of Blood Turnip. The roots are dark red and nearly round or slightly flattened. The flesh is deep red, zoned with lighter shade, sweet, crisp and tender. This is an excellent market and home garden sort for summer and autumn use.

BEETS—Continued.



Detroit Dark Red.

DETROIT DARK RED—We believe this is the best beet for the market and home garden, and on account of its uniformly deep rich color the most desirable for canning. The tops are small and upright in growth. The leaves are dark green, shaded with red. The roots are medium sized, globular or nearly round, very smooth and of dark blood red color. The flesh is deep vermillion red, zoned with a lighter shade of the same color. The variety is very desirable for bunching. Careful comparisons with all prominent varieties on the market prove that Detroit Dark Red is the most uniform in shape and size and the most attractive in color. It is unsurpassed in quality.

ECLIPSE EARLY—An early beet especially desirable for the home garden and used for bunching. The tops are small. The roots are bright deep red, smooth, round or slightly top shaped, with a small tap and small collar. The flesh is bright red, zoned with pinkish white, very sweet, crisp and tender, especially when young.

EGYPTIAN, CROSBY'S—One of the earliest and best strains of Beets. It is a decided improvement over the well-known Extra Early Egyptian, being equally as early, but larger and more round in form. The roots run uniform in size and shape, have small tops, just right for early bunching. The flesh is deep red, sweet, tender, and of excellent quality. Crosby's Egyptian is fit for the market earlier than most other kinds. It develops its fine turnip shape already in the early stages of its growth and on that account it is also preferred to most other kinds, which take a much longer time to grow to a proper maturity.

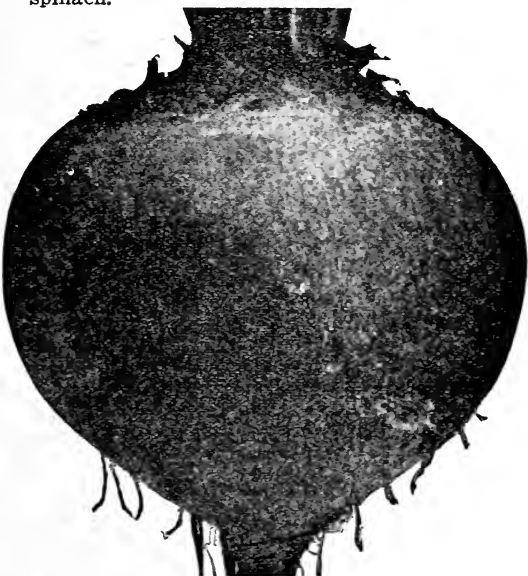
HALF LONG BLOOD—An old and popular variety, especially desirable for fall and winter use, as it does not become woody, and keeps better than the turnip shaped varieties. The root is smooth and handsome and the flesh is a bright red and of good quality.

All the different varieties of beets, unless otherwise quoted: Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 50c; 1 lb., 90c, postpaid; at purchaser's expense, 1 lb., 80c; 5 lbs., \$3.75; 10 lbs., \$7.00.

Examine the merits of our Giant Golden Bantam Sweet Corn. Idaho grown. This is the best sweet corn on the market.



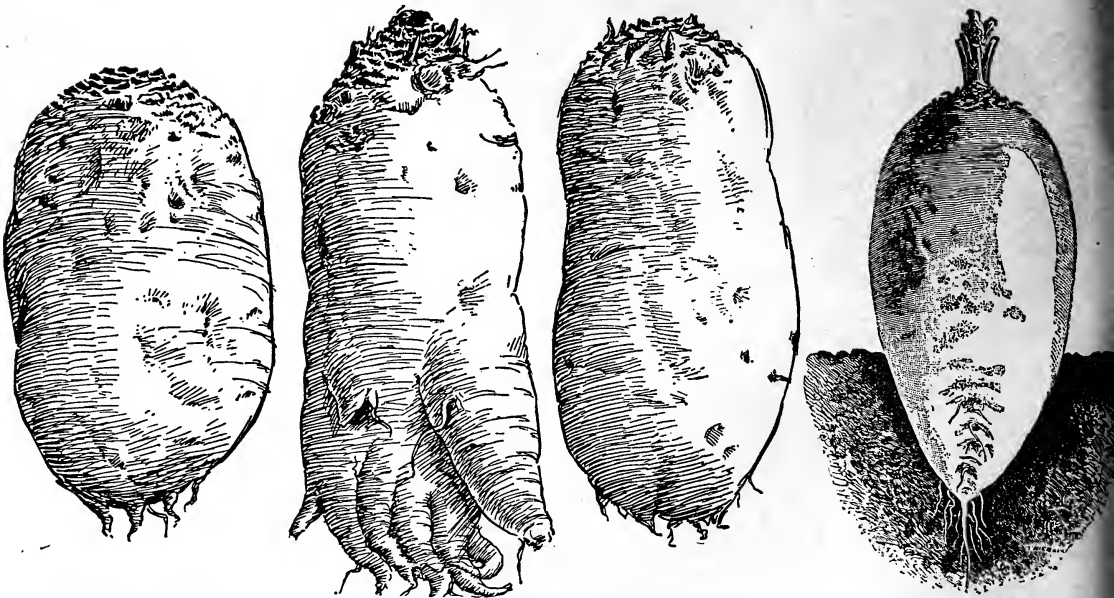
SWISS CHARD OR SEA KALE—This variety does not produce an edible root like the regular garden beet, but is highly esteemed for the broad, white leaf stalks and midribs, which are cooked and served in the same manner as asparagus, making a most delicious vegetable. The leaves are also cooked like spinach.



Wonder

The Beet that Beats them all. This new wonderful beet has become very popular since its introduction a few years ago. The earliest, most perfect shaped, finest appearing bunch beet in the market; beautiful dark color, small top, single small tap root, excellent keeper, truly the ideal Beet. Used not only as a bunch beet but grown extensively for late fall sowing because it grows two weeks quicker than almost any other beet. Every beet grower needs this beet. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 70c; 1 lb., \$1.25, postpaid; at purchaser's expense, 1 lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

MANGEL WURTZELS



Golden Tankard

"Sludstrup"

"Eckendorf"

Giant Half Sugar

The great importance of growing Mangel Wurtzel and Sugar Beets for stock feeding is becoming more and more apparent to the progressive farmer, on account of their immense yield, and their fine feeding qualities. In order to secure seed from the very best types, we are contracting with European and American growers that are looked upon by their competitors as real experts. This seed costs us more than seed from the ordinary strains grown by ordinary growers, but we have always believed that quality is of more importance than price, and judging from the increase in our sales each year, we are convinced that the farmers are recognizing and appreciating the high quality of our seeds.

All varieties of Mangel Wurtzel and Sugar Beets unless otherwise quoted: Oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 55c; lb., \$1.00, postpaid; at purchaser's expense. 1 lb., 90c; 5 lbs., \$4.00; 10 lbs., \$7.50.

DANISH SLUDSTRUP—The Danish Government encourages the growing of root crops by offering certificates of merit to growers who select and produce sorts which are of distinctive value. Sludstrup is considered the best of all mangels, having been awarded first class certificate. In color it is reddish-yellow and of a distinct type. It contains the largest per cent of nutriment found in any sort. It is very hardy, grows well above ground and is easily pulled.

GIANT HALF SUGAR—Is very much more valuable for feeding purposes than the old sorts, it being very much richer. In addition to this, the size and form have been improved until it yields as much per acre as the best mangels, and twice as much per acre as the rich sugar beet seed; is much easier handled, keeps better and is in every way most valuable to the farmer. Roots large, oval in form, very smooth, with few rootlets; tops small, flesh white.

GIANT RED ECKENDORF—A very popular variety. The roots are smooth, long and cylindrical in shape, very much like the tankard mangels. They are very heavy, weighing up to 15 and 20 pounds each. The flesh is firm, crisp and solid, white in color and of high feeding value. This variety is easily harvested, a large proportion growing above ground.

GOLDEN TANKARD (Improved)—A special feature is the rich, deep yellow color of the flesh, differing in this respect from other Mangels, surpassing them in milk-producing qualities. The roots are of large diameter, tapering quickly at the bottom, which is quite broad, with only a small tap-root. It grows largely above the soil and is easily harvested. It yields an enormous bulk on good land, and can be grown closely in rows.

KLEIN WAUZLEBEN—This variety has proved to be a very valuable sort, on account of its richness in saccharine matter, thus dem-

onstrating its superiority for feeding purposes. Roots rather long, slender growing into the ground. A great yielder.



MAMMOTH LONG

RED—This is the heaviest cropping and largest of all mangels. The roots grow from one-half to two-thirds above the surface and are frequently two or more feet in length by six inches in diameter. Dark, richly colored foliage, skin dark red, flesh white with veined rings of rose-pink. Oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 45c; 1 lb., 85c, postpaid; at purchaser's expense, 5 lbs., \$3.75; 10 lbs., \$6.50.

All varieties of Mangel Wurtzel and Sugar Beets not otherwise quoted: Oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 55c; 1 lb., \$1.00, postpaid; at purchaser's expense, 1 lb., 90c; 5 lbs., \$4.00; 10 lbs., \$7.50.

BRUSSELS SPROUTS



Cultivated for the small heads that grow in considerable numbers from the main stem. It is a delicacy much esteemed by some. Sow in seed bed middle of spring and transplant and manage as winter cabbage. Pkt., 5c; oz., 30c; 2 oz., 50c; ¼ lb., 90c.

Cabbage

Cabbage is recognized as a crop that usually can be depended upon for good returns. The cost of seed per acre is very small, but the quality of seed you obtain is all important. Do not sacrifice quality. Obtain the best. Our seed is secured from the most reliable growers, gives best results, and better satisfaction than the ordinary strain of cabbage.

We want to call special attention to four varieties:

CLOVER LEAF COPENHAGEN MARKET.
CLOVER LEAF DANISH SUMMER BALL HEAD.

CLOVER LEAF DANISH BALL HEAD.
CLOVER LEAF ROUND HEAD.

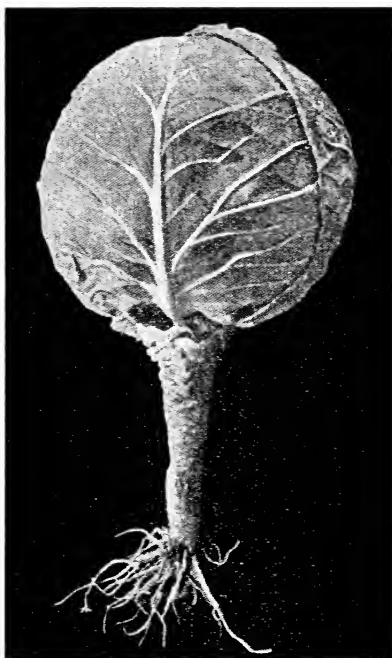
In the cabbage family these four varieties are specially recommended, and we take just pride in the perfection of the types we have secured and have full confidence that they will prove to our customers all we have claimed for them.

CULTURE—For early cabbages sow the seed in a hot-bed in March or April, covering the seed from ¼ to ½ an inch deep and, when big enough, transplant to another bed. As soon as the ground is in good condition transplant, outside, in rows 2 feet apart and 15 to 20 inches in the row.

CLOVER LEAF COPENHAGEN MARKET—

This superb new cabbage is undoubtedly without a rival as the finest large round-headed early cabbage in cultivation. The type is thoroughly fixed, the heads maturing all at the same time (this being a great consideration to market gardeners, entailing less labor in harvesting the crop, and allowing the ground to be cleared at the first cutting). The heads average about 10 pounds each in weight, are very solid, with small core and of fine quality. It matures a little later than the Early Jersey Wakefield, and will give a much heavier yield per acre than that popular variety. The plant is short-stemmed, the heads being produced almost on the ground level. The leaves are light green, rather small, saucer-shaped, and always tightly

First Early



Copenhagen Market

folded. The plants, therefore, can be set closer than is usual with varieties of similar size. Are grown for us in Denmark under special contract. Pkt., 10c; oz., 50c; 2 oz., 90c; ¼ lb., \$1.50; ½ lb., \$2.50; 1 lb., \$4.50.



Early Jersey Wakefield

EARLY JERSEY WAKEFIELD—The earliest and hardiest heading of extra early cabbages. Most gardeners depend upon it for the bulk of their extra early crop. Heads conical, very compact, solid and of excellent quality. The thick, stout leaves and compact habit make it the best sort for very early setting. Pkt., 5c; oz., 30c; 2 oz., 55c; ¼ lb., \$1.00; ½ lb., \$1.75; 1 lb., \$3.00.

CABBAGE—Continued

Second Early

All second early cabbage. Oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.75; 1 lb., \$3.25.

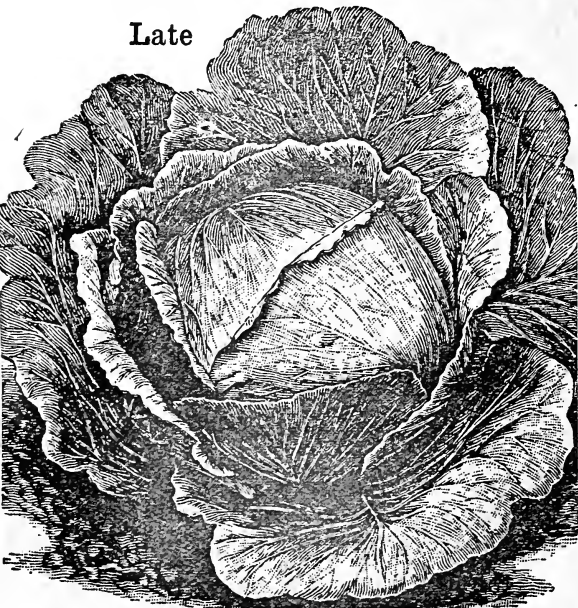
ALL HEAD EARLY—This excellent second early market sort produces heads that are very large for so early a cabbage and of very good quality. It is desirable not only for general spring planting but by planting late it can be used as a fall and early winter cabbage. The variety is well adapted for kraut. The plants are compact, with few outer leaves which are comparatively smooth and rather thick. The stem is short. The heads are solid and flat but very deep.

ALL SEASONS—The heads are extremely hard and solid, round, flattened on top. It is called "All Seasons" because it is as good for autumn or winter as for early summer. The plants are very vigorous and sure heading, with few outer leaves which are large and fairly smooth or slightly waved. It is remarkable for its ability to stand the hot sun and dry weather, remaining an exceptionally long time in condition for use. Sometimes sold as Vandergaw.

CLOVER LEAF DANISH SUMMER BALL HEAD—The Danish Summer Ball Head Cabbage is taking the place among the early varieties that the Danish Ball Head holds among the later sorts. It is a second early, extremely hard, long-keeping and of superb quality. It resembles the Winter Ball Head quite closely, excepting that it is smaller and slightly flat on top. It has traces of curliness on the outside leaves and delicate flavor that suggests Savoy blood. Color is light green, very small, with fine ribs in the leaves.

EARLY WINNINGSTADT—One of the best of the second early or medium early sorts, very hardy, with a very hard sharply pointed head and a very sure cropper. Owing to its compact and upright habit of growth and peculiar texture of its rather short and thick, dark green leaves, the variety resists cold, wet and insect pests exceptionally well. The heads are of medium size, very closely wrapped, sharply conical, of good quality. The leaves are dark bluish green.

All second early cabbage. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.75; 1 lb., \$3.25.

Late**DANISH BALL HEAD.**

CLOVER LEAF HOLLAND OR DANISH BALL HEAD—Short stemmed. Genuine Danish grown stock. Most remarkable late cabbage yet produced. This is one of the hardest cabbages in cultivation, and endures both frost and drought that would destroy other varieties. The plants are hardy and compact; leaves very smooth, but thick; heads of medium size, round and very solid, being the hardest heading cabbage and of the very best quality. Matures quite late, keeps well and is considered by many the best cabbage to keep until spring.

CLOVER LEAF DANISH ROUND HEAD—An earlier, shorter stemmed, improved strain of the Danish Ball Head cabbage. The heads are hard and very solid and mature about two weeks in advance of the Ball Head. They also average a little larger and heavier. The inner leaves are blanched almost pure white, are of sweet flavor, crisp and tender.

BALLHEAD AND ROUND HEAD. Pkt., 5c; oz., 40c; 2 oz., 75c; ¼ lb., \$1.25; ½ lb., \$2.25; 1 lb., \$4.00.

DUTCH, LATE, FLAT—A low-growing variety; heads large, bluish green, round, solid, broad and flat on top, an excellent fall and winter variety and a good keeper; it is a sure header. Pkt., 5c; oz., 30c; 2 oz., 55c; ¼ lb., \$1.00; ½ lb., \$1.75; 1 lb., \$3.00.

DRUMHEAD SAVOY—The best variety of Savoy or crumpled leaf cabbage. The plant is vigorous, with short stem, has densely crumpled leaves and when touched by frost is sweet, delicate and delicious. The head is large and very solid.

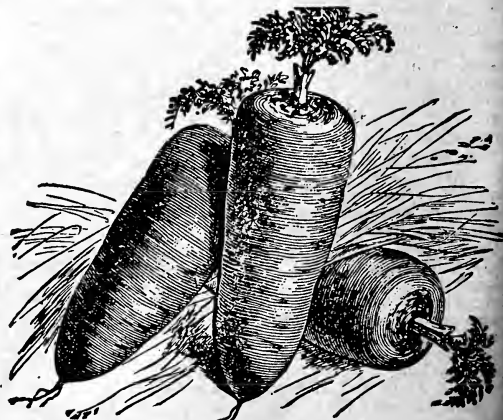
ROCK RED—Best red sort, much used for pickling.

SAVOY AND ROCK RED. Pkt. 5c; oz., 40c; 2 oz., 75c; ¼ lb., \$1.25; ½ lb., \$2.25; 1 lb., \$4.00.

Carrots

Few people realize that Carrots contain a very large amount of starch, the main constituent of both bread and potatoes. Carrots are also rich in sugar. Easily grown, rarely if ever attacked by insects, and very rich in food value. Carrots should be grown much more largely in the garden. When too large for table use, Carrots make a splendid stock food, hence there is no loss.

CULTURE—The carrot, like other root crops, delights in a sandy loam, deeply tilled. For early crops, sow in the spring as soon as the ground is in good working order; for late crops sow any time until the middle of June.

**Danvers Half-Long**

CARROTS—Continued.

CHANTENAY—Half-Long, Long Orange and Oxheart: Pkt., 5c; oz., 15c; 2 oz., 25c; $\frac{1}{4}$ lb., 40c; $\frac{1}{2}$ lb., 60c; 1 lb., \$1.00, postpaid; at purchaser's expense, 1 lb., 90c; 5 lbs., \$4.00; 10 lbs., \$7.50.

Carrots—Table

CHANTENAY—Early, scarlet color, stump rooted, broad, thick shoulder, heavy cropper. Fine quality. In shape and appearance it takes a place between the Oxheart and the Danvers Half-Long.

DANVERS HALF-LONG, IMPROVED—A first-class carrot for all soils. The root is of a rich, dark orange color and grows very smooth and handsome. Very productive, producing as much tonnage to the acre as the longer field sorts, and is much easier harvested.

LONG ORANGE, IMPROVED—A deep orange colored variety. Heavy cropper. Good for either garden or field culture, especially adapted for light, deep soils where it can be easily dug, as the roots penetrate farther into the soil than other varieties. Grows fairly thick and entirely under ground, thereby avoiding green shoulders.

OXHEART OR GUERANDE—A thick carrot, five or six inches long and very blunt at the lower extremity. It grows more rapidly and the root attains a weight of more than a pound. It is tender and of good flavor, and a variety that we can recommend to all market gardeners.

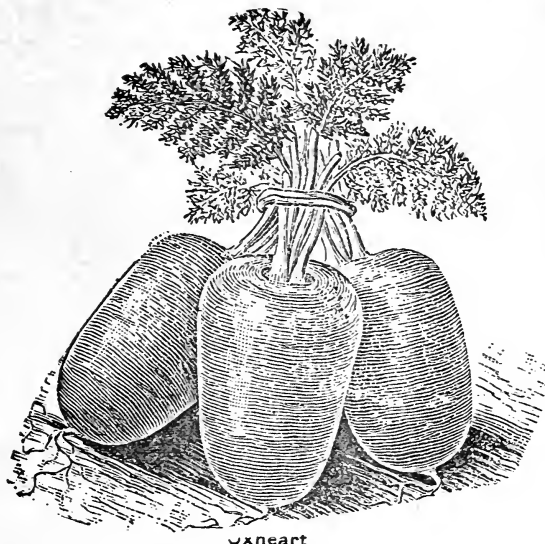
CHANTENAY—Half-Long, Long Orange and Oxheart: Pkt., 5c; oz., 15c; 2 oz., 25c; $\frac{1}{4}$ lb., 40c; $\frac{1}{2}$ lb., 60c; 1 lb., \$1.00, postpaid; at purchaser's expense, 1 lb., 90c; 5 lbs., \$4.00; 10 lbs., \$7.50.

FRENCH FORCING—This is an excellent variety, both for forcing in cold-frames and for sowing in the garden for the earliest supply. The small roots are round in form, one and a half inches in diameter, smooth, tender, and of fine flavor.

SCARLET HORN, EARLY—A very early variety. Recommended for the very early market and family garden. Texture fine; very delicate in flavor.

HUTCHINSON—During the past years the Danvers Half Long Carrot has been the most popular on the market for general purposes. The Hutchinson is a decided improvement over Danvers Half Long, and is briefly described as follows: An elongated type of Danvers, holding its shape well to the blunt end, of very high color and an enormous cropper. It combines length of Danvers and thickness of Oxheart.

HUTCHINSON, FRENCH FORCING AND SCARLET HORN. Pkt., 5c; oz., 15c; 2 oz., 25c; $\frac{1}{4}$ lb., 40c; $\frac{1}{2}$ lb., 75c; 1 lb., \$1.25; at purchaser's expense, lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.



Oxheart

Carrots—Stock

All stock carrots: Oz., 15c; 2 oz., 25c; $\frac{1}{4}$ lb., 40c; $\frac{1}{2}$ lb., 60c; 1 lb., \$1.00, postpaid; at purchaser's expense, 1 lb., 90c; 5 lbs., \$4.00; 10 lbs., \$7.50.

MASTADON—The flesh is white, crisp, solid and very sweet in flavor. Roots half long, smooth, very heavy at the shoulder; an immense yielder.

YELLOW BELGIAN—Grows one-third out of the ground; with small top; flesh rather coarse; the roots, on light, rich ground grow to a large size, and are extensively grown for stock feeding.

YELLOW GIANT—This carrot is a half-long variety, with an immense broad shoulder. The roots penetrate less than one-half the depth into the ground. The color is a bright yellow, and is perfection for giving the proper color to your butter.

All stock carrots: Oz., 15c; 2 oz., 25c; $\frac{1}{4}$ lb., 40c; $\frac{1}{2}$ lb., 60c; 1 lb., \$1.00, postpaid; at purchaser's expense, 1 lb., 90c; 5 lbs., \$4.00; 10 lbs., \$7.50.



Hutchinson Carrot.

Cauliflower

CAULIFLOWER

—Cauliflower, although one of the most delicious vegetables, is but little grown except by professional gardeners because of the erroneous notion that it is so difficult to grow that only skilled gardeners can produce it. Any one will be reasonably sure of success with this most desirable vegetable if the cultural directions given below are carefully followed.

The Cauliflower is highly esteemed for the mild, delicate flavor and extreme tenderness of the solid white heads.

CULTURE—The soil for cauliflower should be like that for cabbage, but is better if made richer than is ordinarily used for that crop. It should be borne in mind that cauliflower will not head up good in hot, dry weather, and hence the sowing should be so regulated as to bring it to maturity either before the hot summer weather sets in or not until the cooler weather of the fall. After the heads begin to form, draw the leaves over and pin or tie them together to protect the heads from the sun and keep them white.

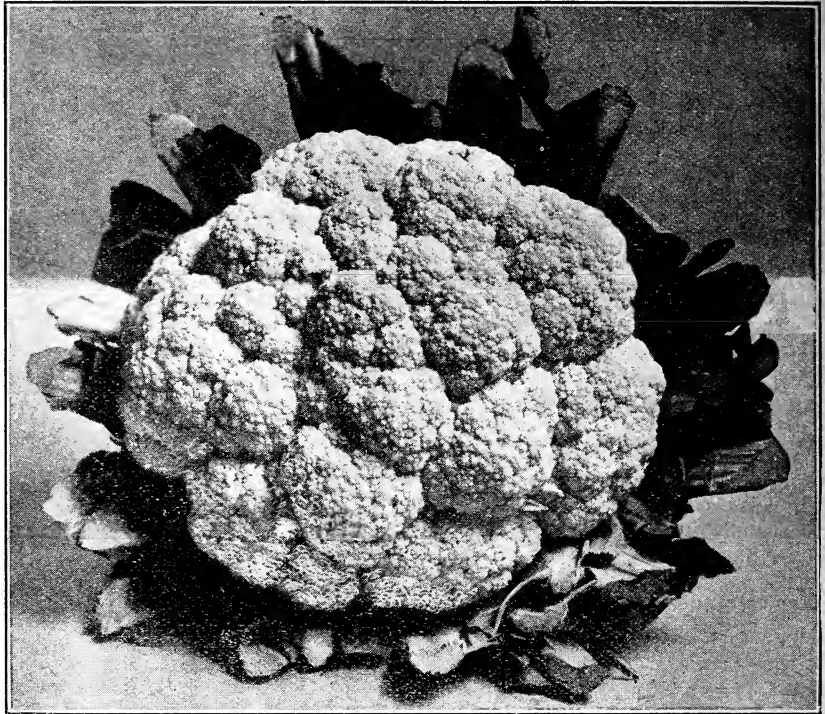
Early

CLOVER LEAF SNOWBALL (Best Imported Strain)—This is an improved extra early strain of dwarf, compact growth. Under favorable circumstances nearly every plant will make a fine, solid head of good size. It is valuable for both early and late.

DANISH GIANT OR DRY WEATHER—Large leaved, with pure white compact heads. It is truly a first-class cauliflower and is specially adapted to dry locations and to resisting the effects of drouth. Two weeks later than the Snowball, when planted at same time. Both varieties of early Cauliflower. Pkt., 10c; ½ oz., \$1.25; oz., \$2.25; 2 oz., \$4.00; ¼ lb., \$7.50.

Late

AUTUMN GIANT—A distinct and valuable late variety. The heads are reasonably large, beautifully white, firm and compact, and, being well protected by foliage, remain for a long time fit to use. The plants should be started and transplanted early in the season to insure their full development. Pkt., 5c; oz., \$1.00; 2 oz., \$1.75; ¼ lb., \$3.00.



Snowball

Celery

Finely blanched Celery is one of the most popular and attractive vegetables for the table during fall and winter. Would advise making two plantings where wanted for either home use or market. For the earliest crop the seed should be sown in hotbeds during February or March, and the young plants set in rich soil as soon as large enough, after the trees start out in leaf. For the fall or main crop seed may be sown in the open ground as early in the spring as the soil can be worked in good condition, and the plants should be set in the rows during July.

CULTURE—Sow in light, rich soil, in shallow drills, and cover the seed lightly with finely sifted mold. When the plants are 5 to 6 inches high transplant to rows 3 to 4 feet apart, according to the variety, allowing 8 inches between the plants in the row. Cultivate freely and earth up to blanch the stems, pressing the soil firmly around the plant almost to the top, care being taken not to cover the tops of the center shoots.

Early

WHITE PLUME—A very popular variety on account of its naturally white leaf stalks, which require less blanching than the other kinds. It is early, a fine market sort, and the variety mostly used by gardeners. Pkt., 5c; oz., 30c; 2 oz., 50c; ¼ lb., 90c; ½ lb., \$1.65; 1 lb., \$3.00.

A Full Line of Dairy Supplies

CELERY—Continued.



White Plume Celery.

Corn—Sweet

CULTURE—Sweet corn should not be planted deeper than one inch to one inch and a half, as it is liable to rot in the ground, especially if the ground has not become warm. Hoe often, drawing the earth against the stems and break off the side shoots.

First Early

White Cory, Early Minnesota, Golden Bantam and Howling Mob: Lb., 35c postpaid; at purchaser's expense, lb., 25c; 5 lbs., \$1.25; 10 lbs., \$2.25; 25 lbs., \$5.00; 50 lbs., \$8.50; 100 lbs., \$16.00.

WHITE CORY

EXTRA EARLY—One of the earliest varieties well and favorably known in all parts of the country. It succeeds well where the seasons are short, and can be recommended for general planting. Ears six inches long, with eight rows of broad grains.

EARLY MINNESOTA—This deservedly popular variety is one of the best second early sorts for the market and the home garden. The stalks are about six feet high, bearing one or two ears



Early Minnesota

Medium

GOLDEN SELF-BLANCHING—It is of a rich, golden tint when ready for the table; very handsome and of excellent quality. Pkt., 10c; oz., 40c; 2 oz., 75c; ¼ lb., \$1.25.

Late

CELERIAC OR TURNIP-ROOTED—Grown exclusively for its roots, which are turnip-shaped, very smooth, tender and marrow-like. The roots are cooked and sliced; used with vinegar they make an excellent salad.

GIANT PASCAL—One of the most popular sorts for winter use. It is very large in growth; the stalks are exceptionally thick with very heavy hearts which, when blanched, are of a beautiful creamy yellow color. Very brittle and of a superb flavor.

Both varieties: Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.00; 1 lb., \$1.75.

well covered with husks. The ears are about 8 inches long, eight rowed; kernels very broad, white, sweet and tender, not shrinking much in drying. By careful selection we have developed a stock of this standard variety which is remarkably uniform and in which all the good qualities that have made this sort so desirable are intensified.

GOLDEN BANTAM—Of extreme hardness, this can be planted earlier than any other sweet corn, and will then produce the earliest supply of ears for the table. The stalks grow from three and one-half to four feet in height and produce one or two good ears on each stalk. The ears are about six inches in length, completely filled with eight rows of golden-yellow grains, extending to the rounded tip.

QUALITY—The flavor is deliciously distinct, exceptionally rich and sugary, the sweetest of all, superior to that of any other corn. Of all varieties the name "Sugar Corn" seems to fit this best as it is so unusually sweet. The decided preference shown for it in market, restaurant and home has enabled many growers to sell Golden Bantam at a premium.

HOWLING MOB—This variety has become very popular on account of its earliness, and its possessing the sweet flavor of the later varieties. The stalks are of strong vigorous growth, four and one-half to five feet in height, have abundant foliage and generally produce two fine ears to each stalk. The ears measure seven to nine inches in length with twelve or fourteen rows of good-sized pearly-white grains. They are covered with a heavy husk which extends well out from the tip of the ears and affords good protection from the green worms which are so often destructive to early varieties.

White Cory, Early Minnesota, Golden Bantam and Howling Mob: 1 lb., 35c, postpaid; at purchaser's expense, 1 lb., 25c; 5 lbs., \$1.25; 10 lbs., \$2.25; 25 lbs., \$5.00; 50 lbs., \$8.50; 100 lbs., \$16.00.

PEEP O' DAY—For earliness, flavor, sweetness and productiveness it is ahead of any other early white sweet corn. It will prove a money-maker for the market gardener, and a valuable addition to our list of corn for our short western summers.

GRANT GOLDEN BANTAM—See Golden Bantam for general description and outside of covers for actual photograph. Giant Golden Bantam retains the color, flavor and earliness of the regular Golden Bantam, to which may be added the increased size of the ears. It is, therefore readily seen that Giant Golden Ban-

CORN—Continued

tam corn is far superior to any other sweet-corn on the market, because it possesses qualities not possessed by any other.

Peep O' Day and Giant Golden Bantam: 1 lb., 40c, postpaid; at purchaser's expense, 1 lb., 30c; 5 lbs., \$1.40; 10 lbs., \$2.50; 25 lbs., \$5.50; 50 lbs., \$10.00; 100 lbs., \$18.00.

Medium Early

COUNTRY GENTLEMAN—A favorite second early or main-crop variety with all private gardeners for its tenderness, delicacy, small, deep grains, and sweetness. The ears are of fair size, frequently three or four to the stalk. 1 lb., 40c; at purchaser's expense, 1 lb., 30c; 5 lbs., \$1.40; 10 lbs., \$2.50; 25 lbs., \$5.50; 50 lbs., \$10.00; 100 lbs., \$18.00.

EARLY EVERGREEN—This fine variety yields large, handsome, ten and twelve rowed ears, averaging about nine inches in length. It is very sweet, has a fine flavor and remains tender a remarkably long time. Both varieties of medium early sweet corn. 1 lb., 35c, postpaid; at purchaser's expense, 1 lb., 25c; 5 lbs., \$1.25; 10 lbs., \$2.25; 25 lbs., \$5.00; 50 lbs., \$8.50; 100 lbs., \$16.00.

LATE

STOWELL'S EVERGREEN—The standard main crop variety, much used for the home garden, market and canning. It is hardy and productive, very tender and sugary, remaining a long time in condition suitable for boiling. This corn is distinguished by the large ear, the long, deep kernels, its rich, sugary flavor and its long keeping qualities. The ears are about seven to eight inches long, fourteen to twenty rowed, with very white grain. The stalks are about seven and one-half feet high. The best known and most largely planted of all the late varieties.

1 lb., 35c, postpaid; at purchaser's expense, 1 lb., 25c; 5 lbs., \$1.25; 10 lbs., \$2.25; 25 lbs., \$5.00; 50 lbs., \$8.50; 100 lbs., \$16.00.

Corn—Field

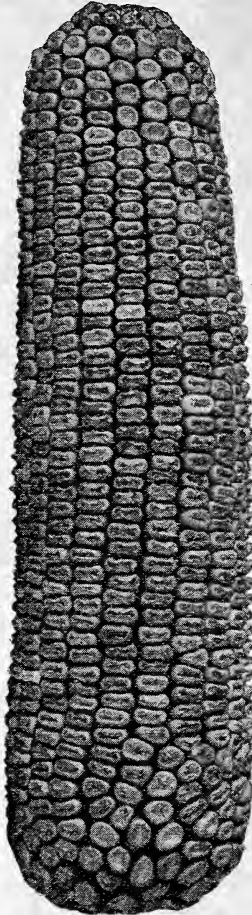
Corn growing is becoming more and more a staple product in the Northwest and experiments have shown that with carefully prepared fertile soil the difference in seed has made a difference in the yield of double the bushels per acre. It has been fully demonstrated that home grown seed will mature a great deal better than seed secured from the East. We therefore draw special attention to our home grown Minnesota King and our home grown White Cap Dent.

All varieties of field corn: 1 lb., 25c, postpaid; at purchaser's expense, 5 lbs., 75c; 10 lbs., \$1.25; 25 lbs., \$2.50; 50 lbs., \$4.00; 100 lbs., \$7.50; 500 lbs., \$36.25; 1,000 lbs., \$70.00.

Dent, Yellow

MINNESOTA No. 13—The commanding points of excellence which place Minnesota No. 13 Corn at the head of all yellow dent varieties for Northwestern planting are: Its earliness, its enormous productiveness, its adaptability to a great variety of soils and climates. The ears are of handsome appearance, bearing 16 to 20 rows of bright, rich yellow, smooth, wedge-shaped kernels packed closely on the cob from butt to tip. The ears average eight inches in length and are borne usually two on a stalk. No corn excels in quality the Minnesota No. 13; the cobs are well filled and the individual ker-

nels plump and of good color. The stalks grow to a height of seven feet and being leafy make excellent and very nutritious fodder. A variety of corn which shows such valuable characteristics is an acquisition on any farm, especially for planting in the Northwest where early frosts are common.



Yellow Dent.

MINNESOTA KING (Home Grown)—We regard this corn in some respects as the most valuable early corn for the Inland Empire. It seems to possess a faculty of growing right along and making a crop during weather and under conditions that would ruin other varieties. In appearance the Minnesota King is remarkably distinct, being a half yellow dent; the kernels are very broad and are a rich golden color.

PRIDE OF THE NORTH—This is a standard early variety of corn in the East, but is not sure to mature here. From the fact that it produces a large amount of fodder and being early enough to get in proper condition for ensilage, it has taken the lead over all other corns for this purpose.

A Full
Line of
Dairy
Supplies

WHITE CAP (Home Grown)—This has been very successfully grown in this locality for a number of years and has proved very satisfactory. Our grower never had a better crop than he had this past season. The seed we are offering was grown a few miles from Spokane. It ripens early and matures well. Stalks grow to a height of 10 feet and produce 14 and 18 rowed ears that are solid and handsome. This being fully acclimated will mature under any reasonable conditions.

It's early. Productive. Fully acclimated. Very highly recommended. A sure cropper.

Flint, Yellow

EARLY EIGHT-ROWED, OR EARLY CAN-ADA—The great Yellow Flint corn—the corn for the extreme north. The greatest of all the Flint varieties. Ears long, of rich yellow color. Will prove to be of the greatest value to the farmers of the far north. Ripens earlier than any of the Flints.

CORN—Continued

Dent, White

WISCONSIN EARLY—The stalks grow to an average height of 8 feet and are thickly furnished with foliage close to the ground. The ears are large, with 16 to 20 rows of large, deep kernels, which are closely set on a small white cob.

All varieties of field corn: 1 lb., 25c, postpaid; at customer's expense, 5 lb., 75c; 10 lbs., \$1.25; 25 lbs., \$2.50; 50 lbs., \$4.00; 100 lbs., \$7.50. 500 lbs., \$36.25; 1,000 lbs., \$70.00.

Please note that the prices made on field corn are estimates only and may be changed. If wanting quantity, please write stating variety and quantity wanted, otherwise full value will be forwarded for the full amount of money received.

Pop

WHITE RICE—The best corn for popping and for the general market; early, white pointed kernels. 1 lb., 30c, postage paid. At purchaser's expense, 10 lbs., \$2.00.

CRESS

PEPPER GRASS (Curled)—The leaves, when young, have a warm, pungent taste, and are used as a salad, either alone or mixed with other salad plants. As they are milder and more tender when young, the seed should be sown at intervals of 10 to 15 days, making the first sowing as soon as the ground can be prepared. Pkt., 5c; 1 oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25.

WATER—A delicate, pungent salad plant, very agreeable alone or mixed with other salads. Entirely distinct from common cress, thriving only where its roots are submerged. Sow the seed thinly along the banks of any shallow stream early in the spring. Pkt., 10c; oz., 40c; 2 oz., 75c; ¼ lb., \$1.25; ½ lb., \$2.25; 1 lb., \$4.00.

Cucumbers

This is one of the vegetables that can be grown to perfection by any one who can control a few square yards of reasonably good soil that is fully exposed to the sun. Every

family should be supplied from its own garden, since the fruit is so much better when gathered fresh from the vines as desired for use than it is in the more or less wilted condition in which it is found on the market.

CULTURE—Plant in hills about four feet apart each way; thin out to four of the strongest plants in each hill; they succeed best in warm, moist, rich, loamy soil. The cucumbers should be gathered when large enough for use, whether required or not; if left to ripen, it destroys their productiveness.

All varieties of cucumbers unless otherwise quoted: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25, postpaid; at purchaser's expense, 1 lb., \$1.15; 5 lbs., \$5.25; 10 lbs., \$10.00.

BOSTON PICKLING—This is a very productive variety that is extensively grown for pickles. The vines are vigorous. The fruits are bright green, of medium size, very smooth and symmetrical. The flesh is crisp and tender.

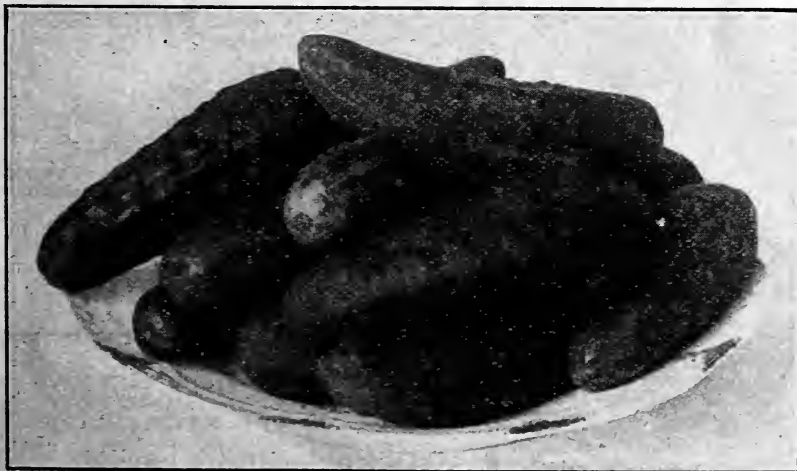
DAVIS PERFECT—This cucumber has an ideal shape and a beautiful dark green color. Its eating qualities are unsurpassed, both because of its fine flavor and its small number of seeds. On account of its fine flavor, small number of seeds, and its great productiveness it is a general favorite and is highly recommended.

EARLY CLUSTER—A short, prickly variety; usually growing in clusters. Is a prolific bearer, and one of the earliest; flavor excellent.

EARLY WHITE SPINE—One of the best sorts for trade use, fruiting early and abundantly; fruit uniformly straight and handsome; light green, with a few white spines.

EVERBEARING—This is not only a very early variety but is also extremely prolific. If the fruit is kept gathered, vines will continue in bearing throughout the season. The fruit is of medium size and rich dark green color, average from four to five inches in length by an inch and a half in diameter. Owing to its great productiveness. It is an excellent variety to plant for producing small pickles.

GHERKIN, WEST INDIA—This variety is used exclusively for pickling, a distinct species from the common cucumber. It is a vigorous grower and consequently should be planted 6 feet apart. The fruit is very small, almost round and closely covered with spines.

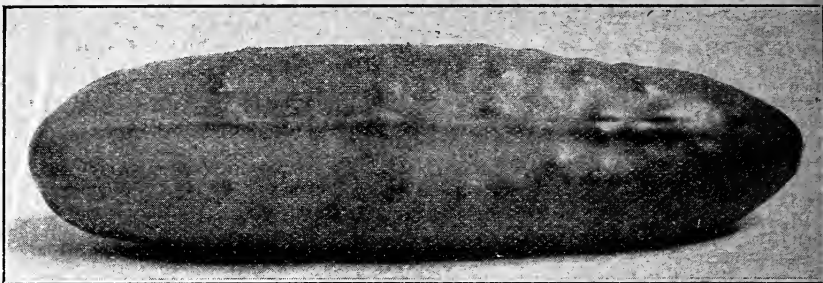


Boston Pickling

See
Our
Special
Offer
On
Pages
1, 2 and 3

CUCUMBERS—Continued**IMPROVED LONG GREEN—**

The vines are very vigorous and productive. The fruit is very long, growing frequently from 12 to 15 inches, and are uniformly slender and of a beautiful dark green color. The large warts and spines are well distributed over the surface instead of being clustered at one end as in inferior stocks. This variety furnishes some fruit early but matures the bulk of its crop rather late. It is a standard sort for slicing and is very largely used for pickles. This is probably the most extensively used cucumber for the home garden and market.

**Improved Long Green**

JAPANESE CLIMBING—A sort of pole cucumber, its name being due to its tendency to climb and bear its fruit up from the ground, if afforded support; fruit large and thick.

SHORT GREEN, OR EARLY FRAME—A vigorous and productive variety, producing fruit of medium size and regular form; flesh crisp and tender; excellent for the table or pickling.

All varieties of cucumbers: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25, postpaid; at purchaser's expense, 1 lb., \$1.15; 5 lbs., \$5.25; 10 lbs., \$10.00.

EGG PLANT

CULTURE—Sow in hotbeds very early in the spring; transplant to 2 or 3 feet apart in very rich, warm ground. Do not plant them outside till nights have become warm, as the least frost or cold nights will greatly retard their growth.

**Improved New York**

BLACK BEAUTY—This beautiful egg plant is 10 days earlier than the New York Improved. The fruit is broad and thick, of most attractive form and does not fade or change to a lighter color at the blossom end. The fruits set freely and are ready for market early, so the crop can be gathered before danger of frost. Pkt., 10c; oz., 50c; 2 oz., 90c; ¼ lb., \$1.75; ½ lb., \$3.00; 1 lb., \$5.50.

NEW YORK IMPROVED—This is a standard variety, both for market and home garden; a favorite everywhere. Pkt., 10c; oz., 50c; 2 oz., 90c; ¼ lb., \$1.75; ½ lb., \$3.00; 1 lb., \$5.50.

ENDIVE

This is one of the most refreshing and attractive of all autumn and winter salads. It is most appetizing when served mixed with lettuce, with French dressing. Sow seed from middle of June to last of August.

BROAD LEAVED BATAVIAN—Leaves are broad, thick, green, more or less twisted and waved with white mid-ribs. It forms large hearts, which when blanched form one of the best winter salads. Crisp, tender and fine flavor.

LARGE GREEN CURLED—A fine market sort; tender, green leaves; blanch white; hardy.

Both varieties of Endive: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25.

GARLIC

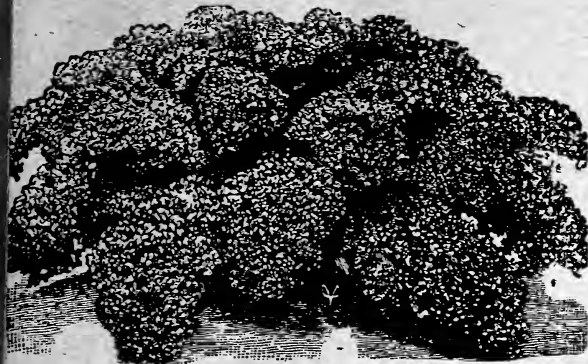
Has a bulbous root, with a strong, penetrating odor and flavor. Belongs to the onion family and cultivated much in the same manner. We cannot offer seed, but can supply the bulbs or sets.

This is extensively used in many places for flavoring soups, stews, etc. The sets should be planted early in spring and treated like onions. 1 lb., 35c.

Quality is our main objective
not only in our seeds, but in
every other item we handle.

KALE OR BORECOLE

Kale, or Borecole, is a kind of cabbage that does not form a close and solid head, but a cluster of beautifully curled or wrinkled leaves that are tender and of excellent flavor. It requires the same treatment as cabbage, and is very hardy, being improved by frost.



KALE

DWARF GREEN CURLED SCOTCH—Plant low and compact, with large, bright, deep green leaves, curled, cut and crimped until the whole plant resembles a bunch of moss.

TALL GREEN CURLED SCOTCH—Produces an abundance of dark green, curled leaves. Very hardy.

Both varieties of Kale: Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.00; 1 lb., \$1.75.

THOUSAND HEADED—The great demand for this wonderful forage plant proves it to be the most valuable green feed for dairy and stock men. Endorsed by agricultural colleges and government stations. Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 50c; 1 lb., 90c.

KOHL-RABI



The Kohl-Rabi is a vegetable intermediate between the cabbage and turnip, and combines the flavor of each. The edible part is a turnip-shaped bulb. When used for the table this should be cut when quite small, as it is then very tender and delicate, but if allowed to reach its full size it becomes tough and stringy.

EARLY WHITE VIENNA—Is the earliest and best for forcing: is very

tender; excellent for table use. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.25.

LEEK



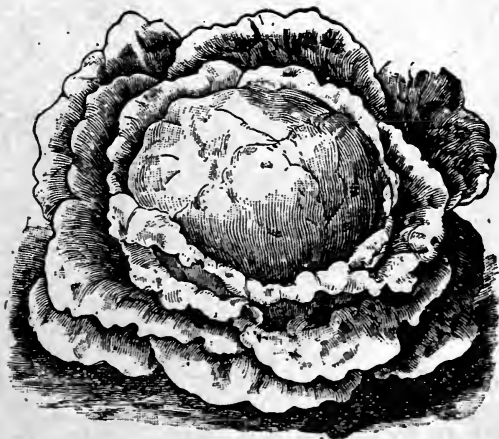
London Leek.

LARGE LONDON, OR SCOTCH FLAG—This leek is generally considered more delicate than the onion for soup, etc. Sow in seedbed middle of spring; when the plants are three or four inches high, transplant them into rows wide enough apart to admit the hoe between them. Pkt., 5c; oz., 15c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; 1 lb., \$1.50.

Lettuce

Lettuce to be at its best should be grown rapidly, hence the soil should be made as rich as possible by liberal manuring and thorough preparation.

CULTURE—Sow every month as soon as the ground is open, in drills one foot apart, covering the seeds about one-quarter of an inch deep and thinning out to 6 or 8 inches in the row. For a cut salad sow thicker and do not thin out. Does best in rich, moist soil.

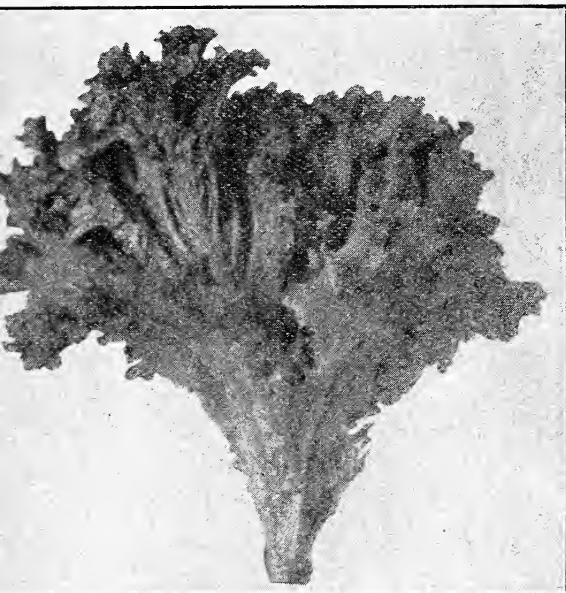


We handle only high grade
seeds.

LETTUCE—Continued

Early and Forcing

BIG BOSTON, (Seed White)—This market variety is very popular for outdoor culture and is also in demand as a compact, large heading, forcing sort for cold-frames. The plants are large, very hardy and vigorous. The leaves are broad, comparatively smooth but wavy at the edge, thin, very hard and crisp. In color they are bright light green, the head slightly tinged with reddish brown. The inner leaves blanch to an attractive greenish white, tinged with light yellow. It heads up under cold weather conditions better than any other variety.



Grand Rapids.

GRAND RAPIDS, (Seed Black)—As a lettuce for greenhouse forcing this variety undoubtedly stands at the head of the list, being of quick growth, little liable to rot and standing for some days after being ready to cut. This plant is upright and forms a loose head or cluster of large, bright leaves, slightly crimped and blistered and rather thin.

Big Boston and Grand Rapids: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00.

LOOSEHEAD OR CUTTING

PRIZEHEAD—Large, loose-headed sort. The leaves are tinged with brown, very heavy.

SIMPSON, (Black Seeded)—Very large, loose heads of curly, golden-yellow, leaves which are thin and tender. It stands summer heat splendidly and is valued for frame culture.

CURLED SIMPSON OR SILESIA—One of the best curled varieties for early sowing out of doors. Very popular with market gardeners and private planters.

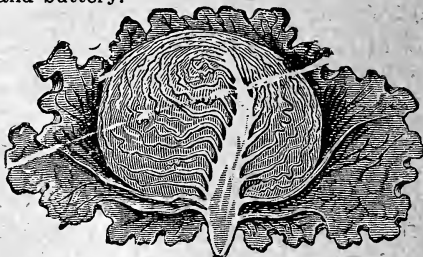
Prizehead and Simpson's: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00.

Heading

Cream Butter, Hanson, Iceberg and Salamander: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00.

CALIFORNIA CREAM BUTTER OR ROYAL SUMMER CABBAGE—A very reliable heading sort, with glossy, deep green leaves, the outer ones slightly spotted or splashed with brown. The inner leaves form a large, very solid head,

rich light yellow in color, very thick and tender and buttery.



HANSON—One of the most desirable later summer lettuces. The plant is compact and forms a large, cabbage-like head which remains in condition longer than most heading sorts. The outer leaves are bright yellowish green, broad, somewhat crumpled and frilled at edge and with distinctive midrib. The inner leaves are white, very crisp and sweet. This thin-leaved, curly, tight-heading sort is very extensively used for the kitchen garden as well as market.

ICEBERG—Has an unusually solid head. The white main ribs of the leaves curve toward the center, which keeps the interior thoroughly blanched. It is quickly growing and always crisp and tender.

SALAMANDER, (Seed Black)—A very extensively used sort of excellent quality for the home garden and market. The variety withstands hot weather remarkably well. It forms a large compact, light green plant. The leaves are broad, thick, somewhat crumpled and closely overlapping so that the inner ones are very finely blanched. It is one of the most satisfactory heading lettuce for growing outdoors.

Cream Butter, Hanson, Iceberg and Salamander: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00.

NEW YORK OR WONDERFUL—The mammoth heads are solid, heavy, beautifully blanched to a creamy white with bright green outer leaves. The quality is unsurpassed, being tender, crisp and sweet. The New York is a hardy, rapid grower, deep rooted and resistant to drought; a slow seeder and sure to head. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25.

Cos

PARIS WHITE COS—The Cos Lettuce differs entirely in shape from other varieties, the head being elongated and of conical form, eight or nine inches in height and five or six inches in diameter. The outer coloring of this variety is yellowish green. To be had in perfection it re-

Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25.

MUSHROOM SPAWN

With intelligent care and good spawn, mushrooms can be made to pay handsomely. They can be successfully grown in a dry cellar or under the benches of a greenhouse, where the temperature can be kept from 50 to 60 degrees.

LAMBERT'S PURE CULTURE—A new kind of spawn, without doubt the best. It comes in bricks, weighing about 20 ounces. These are broken up into pieces the size of a walnut and put into the bed one foot apart each way. Brick, 40c, postpaid; at purchaser's expense: Brick, 30c; 5 bricks, \$1.40; 10 bricks, \$2.50.

Illustrated book on Mushroom Culture, containing the latest methods of raising, preserving and cooking mushrooms: 15c, postpaid.



Musk Melons

There is not anything more refreshing than a fine flavored musk melon or canteloupe. It may seem strange to some that the selection of the seed should have anything to do with this flavor. There is a flavor peculiar to each distinct variety, and this can only be obtained when the varieties are kept up to their well-known standard, and this can only be done by a careful selection of the melons from which the seed is saved. Our growers have always this thought in mind, hence the seed furnished us by our careful and intelligent growers will give best results on account of its careful selection.

CULTURE—The seed should not be planted until the soil has become thoroughly warmed, about corn-planting time. Plant five or six seeds to the hill, in hills four to six feet apart. Rich soil or well-rotted manure should be used in the hills.

Green-Fleshed Varieties

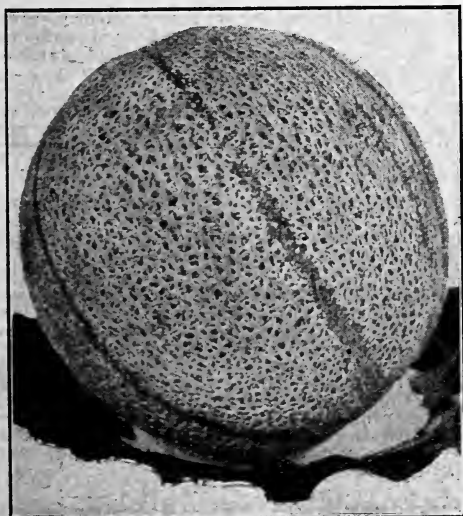
All varieties of green fleshed musk melons not otherwise quoted: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00; at purchaser's expense, 5 lbs., \$4.50; 10 lbs., \$8.50.

CANTELOUPE, LARGE YELLOW—The fruit is large, oblong, slightly ribbed and coarsely netted. The flesh is light yellowish-green, very sweet, crisp and delicious.

CASSABA—Large oblong melon, well ribbed thin skin, green flesh; prolific and of delicious quality; late maturing; good keeper: Pkt., 2 for 15c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.00.

HACKENSACK EXTRA EARLY IMPROVED—A selection from and an improvement on the old Hackensack, and similar in shape and appearance; nearly as large and fully 10 days earlier; one of the finest for market gardeners; quality perfect.

NUTMEG, EARLY PROLIFIC—Fruit of medium size, slightly ribbed, globular. Skin dark green, becoming yellow when overripe, and nearly covered with broad, shallow netting.



Rockyford.

ROCKY FORD OR NETTED GEM—Has attained in an incredibly short time a national reputation. It is of the Netted Gem type, oval in shape, averaging from four and one-half to five inches in length, of a delicious flavor, very fine and smooth grained flesh, of a light green color throughout.

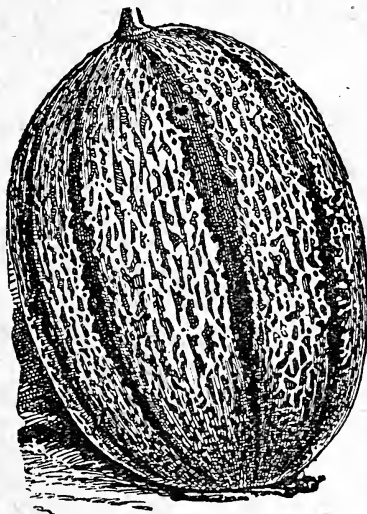
This melon has proved to be very profitable, hence popular on account of its superior quality and its ready sale on the market.

POLLOCK'S RUST-RESISTANT—Mr. Pollock originated the melon bearing his name by selecting seed from a plant which had not rusted out of a field that the rust had destroyed. This point has been observed in selecting stock seed until the melon, while not being perfectly rust-proof, is practically so. The main difference between it and the original Rocky Ford is more uniformity.

All varieties of green fleshed musk melons not otherwise quoted: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00; at purchaser's expense, 5 lbs., \$4.50; 10 lbs., \$8.50.

Salmon-Fleshed Varieties

BANANA—This is a Banana Melon of a banana shape, banana flavor, banana color and banana quality; it resembles the banana in many respects, only that it is very much larger, growing from 18 to 30 inches long and from 4 to 6 inches in diameter. Everybody who is fond of bananas will take pleasure in growing and surely will be delighted with this Melon. Pkt., 5c; oz., 20c; 2 oz., 25c; ¼ lb., 65c.



Burrell Gem

Burrell's Gem, Emerald Gem, Hoodoo, Osage and Paul Rose: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00; at purchaser's expense, 5 lbs., \$4.50; 10 lbs., \$8.50.

BURRELL GEM—Burrell's Gem has a tough thin rind, well arched ribs, covered with a closely interlaced gray netting; shape elongated, being about 4½ inches in diameter by 6 inches long, flesh of a reddish orange, very thick, fine grained and spicy, seed held firmly in a triangular cavity. This is the secret of a good shipping melon. If the seeds shake loose easily a melon will quickly decay.

EMERALD GEM—This is a variety of excellent quality and of medium size. The skin, white-ribbed, is perfectly smooth and of a deep emerald green color. The flesh is thick and of a deep salmon color, and ripens to the green rind. The flavor is very sweet and luscious. The vines are hardy and very prolific, and the melons mature extremely early.

MUSK MELONS—Continued

HOODOO—Sometimes sold as Ordway Queen. This is an orange fleshed variety of medium size, ideal as a shipping melon and a desirable mid-season sort for the home garden. The vines are vigorous, blight-resisting and very productive. The fruits are uniformly of medium size. The netting is exceptionally fine and dense, extending over practically the entire surface. The rind is thin yet very firm, so that the melons arrive in perfect condition in distant markets. The flesh is very thick, firm, highly colored, of fine texture and delicious flavor.

OSAGE OR MILLER'S CREAM—The skin is very thin, of a dark green color and slightly netted. The flesh is of a salmon color, remarkably sweet, extremely thick, and delicious to the rind. It is also very productive. It is a remarkable keeper, and will stand shipping.

PAUL ROSE OR PETOSKEY—A successful cross between the Osage and Netted Gem. It combines the sweetness of the former with the fine netting of the Gem, and is even a better shipper than that variety. The melons grow uniform in shape and size. The flesh is remarkably thick, making the melons very solid and heavy, and of a beautiful salmon or orange color; delicately sweet and melting.

Burrell's Gem, Emerald Gem, Hoodoo, Osage and Paul Rose: Pkt., 5c; oz., 15c; 2 oz., 25c; lb., 40c; ½ lb., 60c; 1 lb., \$1.00; at purchaser's expense, 5 lbs., \$4.50; 10 lbs., \$8.50.

GARDEN LEMON—The fruit is short, nearly round with yellow and green markings; skin smooth, flesh very tender and of sweet flavor. Best when turning yellow. Specially recommended for preserves. Pkt., 5c; oz., 20c; 2 oz., 35c; ½ lb., 65c.

SPECIAL MUSK MELONS

We call special attention to the three following types of melons. Melons, like a great many other things, have undergone a great improvement in type and quality, but none any more so than the following types:

CLOVER LEAF GOLD LINED ROCKY FORD—Regarding this melon our grower says: We have carefully inspected every strain and type of Rocky Ford Cantaloupe, and we believe this to be the very best type, for all purposes, that there is in existence. It is an ideal crate melon, as fruits grow uniform, and loss from undersize and oversize is very small, and its quality can not be excelled. Medium size, solid net, gold lined or inner lining of yellow, small seed cavity, excellent quality, vines hardy, thrifty and rust-resistant.

Pkt., 5c; oz., 20c; 2 oz., 30c; ½ lb., 50c; ½ lb., 85c; lb., \$1.50.

ROCKY FORD PINK MEAT—The Pink Meat Rocky Ford is the same general type of melon in appearance as the Gold Lined, with netting a trifle finer. Better shipper than the old type green fleshed Rocky Ford. Flesh pink and of excellent flavor. The Pink Meat Rocky Ford Cantaloupe has become very popular in the last two or three years. Its shipping qualities are excellent, quality all that can be desired, and we believe is destined to be very popular. Pkt., 5c; oz., 20c; 2 oz., 30c; ½ lb., 50c; ½ lb., 85c; 1 lb., \$1.50.

HONEY DEW

It is as sweet as honey and has the mingling of several flowers—pineapple, banana and vanilla predominating.

The average size of the melon is six inches in diameter and seven to eight inches in length, weighs five to six pounds. The skin is smooth with an occasional net, is a creamy yellow when ripe. The flesh is an emerald green, very thick, melting, and very fine grained, can be eaten to the extreme rind. The seed cavity is very small, the rind impervious to water, the melon does not shrink in weight, is not easily bruised and is a splendid shipper.

It matures about ten days later than the Rocky Ford, is very prolific and will keep for several weeks if picked a short time before it is fully matured.

Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.25.

Watermelons

Watermelon seed, like all other seeds, should be selected from true types and from melons that have attained a large growth and ripened early. This method will produce and preserve true strains, while the generally followed plan of saving seed from all melons in a field without reference to size, shape, or time of ripening, will cause types and quality to deteriorate. Our growers give a great deal of time, thought and care to the thorough selection of the seed furnished us. Under these conditions we are obliged to pay a higher price for the seeds we secure than we would for ordinary seed, but we have the great satisfaction of knowing that we are supplying our customers with a very much higher grade of seeds than is usually supplied by seed houses.

CULTURE—Watermelons thrive best on light, well drained soils, but give good results on any good rich garden soil that is properly drained and cultivated. Plant after the weather is settled and ground warm. Hills should be eight feet apart each way and with well rotted manure thoroughly worked into each hill.

All watermelons not otherwise quoted: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00; at purchaser's expense, 1 lb., 90c; 5 lbs., \$4.00; 10 lbs., \$7.50.

CUBAN QUEEN—A very fine variety, growing to a great size; flesh bright red, solid and sweet. The skin is beautifully striped, dark and light green.

FLORIDA FAVORITE—Oblong in shape, and growing to a very large size; rind dark, with light green stripes; flesh light crimson, crisp and deliciously sweet.

FORDHOOK EARLY—An extra early watermelon of large size. The rind is tough, making it desirable for shipping purposes. Flesh is light red and is very sweet.

HALBERT HONEY—An exceedingly sweet and deliciously flavored melon, similar in size and shape to Kleckley's Sweet. It is of handsome, long, oval shape, averaging about 18 inches in length, and about six inches in diameter. The skin is an attractive, very dark green, the flesh is of a beautiful bright red, extending almost to the outer rind. The rind, too, is so thin and brittle that it cracks open very easily and will not stand hauling or shipping long distances.

ICE CREAM OR PEERLESS—One of the best melons in cultivation. Rind thin, light, mottled green. Flesh bright scarlet; solid to the center; sweet as honey.

WATERMELONS—Continued.

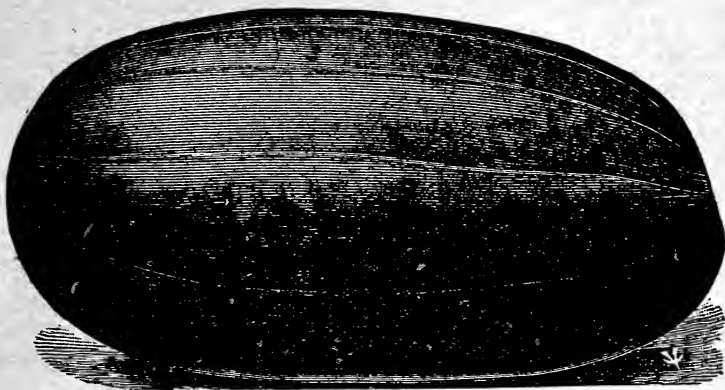
KLECKLEY'S SWEET, OR MONTE CRISTO—

This is one of the best flavored melons in cultivation, and of a shape and color that is extremely desirable. The rind is very dark green, very thin, flesh deep scarlet fine, and of delicious quality. For the home market and family garden it is decidedly one of the best.

Attractive red color, crisp, sweet and delicious. The heart is large with no core. The appearance and quality of this melon make it desirable for both home and market use.

KOLB'S GEM—Is Very large, slightly oval, striped with light and dark green. Rind very hard and firm. Flesh bright red, solid, coarse grained, but tender and sweet.

McIVER'S OR WONDERFUL SUGAR—Ob-long in shape; size uniformly large; handsome appearance; skin shows broad bands of white, shading into narrower bands of dark green; quality is superior, flesh is soft pale pink, crisp, free from any stringiness, and juicy. The melons have a solid heart, free from cracks, while the seed rows are close to the rim.



Kleckley's Sweet



SOUTHERN GIANT CURLED—Sweet flavor, pungent and succulent. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.10.

OKRA OR GUMBO

The long, tender pods of Okra are very delicious when sliced and cooked in soups. While this is its chief use, it is also boiled and served like other vegetables. The dwarf sorts may be planted in hills or in rows about three feet apart. Plant in any good soil about May 15. The pods should be gathered when very young, as they are then very tender.

An early dwarf prolific variety with thick, green pods.

DWARF GREEN—Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.10.

Onions

The Onion is one of the most extensively used of all vegetables. It not only contains considerable nutriment and has valuable medicinal properties, but is most useful in counteracting the bad effects of sedentary life.

It is readily seen that there is a great variety and diversity in the shape, color, size, and flavor of onions, also in their keeping qualities. The keeping is due in some respects to the different varieties, but the care bestowed upon the selection of the bulbs of the various varieties has much to do to improve their keeping qualities. The time and labor given to this special care and attention adds to the cost, but it is well worth the additional cost to the planter, as it insures better keepers, more uniform type; also a greater yield. Our bulbs and seeds receive the necessary care to insure better results.

MUSTARD

MUSTARD is used alone as "greens" or with cress as salad. Sow any time in the spring, in rows.

Tom Watson

TOM WATSON—A large, long melon similar in shape and color to the Kleckley's Sweet and possessing the same delicious flavor and quality, but averaging larger in size and with a tougher rind, making it especially adapted for shipping to distant markets. The vines are vigorous and productive. The flesh is rich red, sweet and tender. Seed white, more or less marked with brown. Wherever grown it has become very popular as a shipping sort. There has been an increasing demand of late for a better quality of shipping melon and this demand has been met in most exceptional degree by the Tom Watson.

CITRON—For preserving; grows uniformly round and smooth; striped and marbled with light green; flesh white and solid.

All watermelons not otherwise quoted: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; c lbs., 60c; 1 lb., \$1.00. At purchaser's expense, 1 lb., 90c; 5 lbs., \$4.00; 10 lbs., \$7.50.

ONIONS—Continued

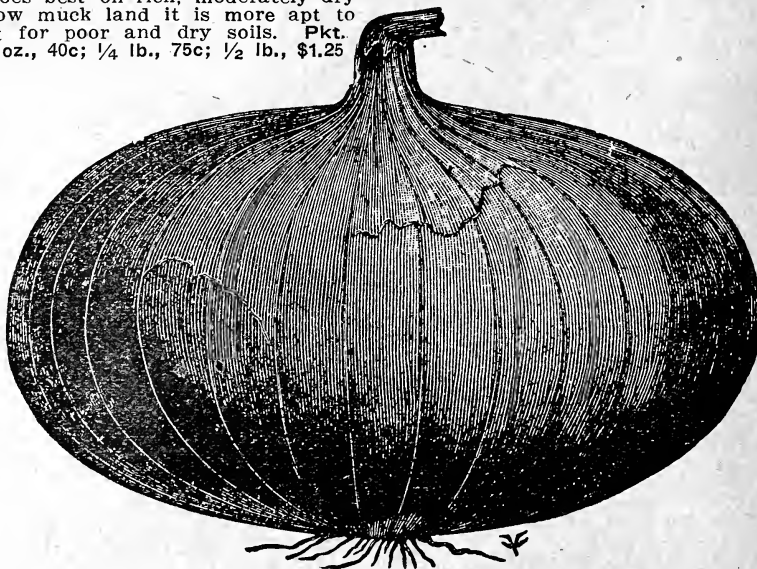
CULTURE—Onions do best on a rich loam, previously cultivated for two years. The land should be highly fertilized with well-rotted manure, or complete fertilizers. Culture should be frequent, though shallow. The same ground may be used for onions season after season, if well fertilized annually. Bone meal is an excellent fertilizer.

Brown

AUSTRALIAN—Of medium size. Wonderfully hard and solid, the bulbs are most attractive for market, both as to form and appearance. The color of the skin is a clear amber brown. Specially noted as a long keeper as it keeps well into spring and much longer than any other varieties. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.10; 1 lb., \$2.00.

Red

LARGE RED WETHERSFIELD—This is the standard red variety and a great favorite. It is very extensively grown for home garden use as well as the market. The bulbs are large and are flattened yet quite thick. The skin is deep purplish red. The flesh is light purplish white, moderately fine grained, rather strong but of pleasant flavor. The variety is very productive, one of the best keepers and very popular for general cultivation. This medium early or main crop variety does best on rich, moderately dry soil, but on low muck land it is more apt to no better sort for poor and dry soils. Pkt. 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.25.



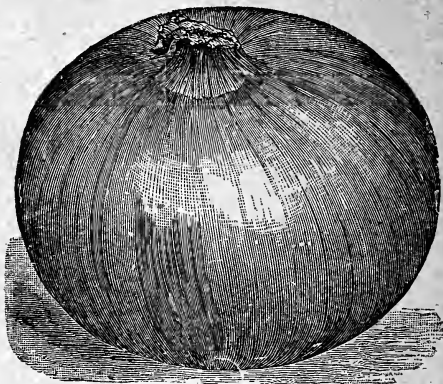
Red Wethersfield

Yellow

DANVERS—YELLOW FLAT—The leading large yellow kind, round, slightly flattened, flesh fine-grained, rather mild, very rich and sweet; one of the best keepers and shippers, and one of the most productive kinds. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., \$1.10; 1 lb., \$2.00.

DANVERS—YELLOW GLOBE—This onion is the standard winter sort in many markets. The shape is almost globe form and the bulbs are quite large, with thin necks, ripening down well. The skin is a fine brown orange yellow, while the flesh is pure white, solid and of good

quality. Its keeping qualities are of the best and its earliness makes it valuable for market. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.25.



Yellow Danvers

MAMMOTH PRIZETAKER—A very handsome late or main crop onion of the largest size and nearly globular in form, usually with shoulder and base slightly sloping. The skin is yellowish brown or light yellow with slight tinge of brown. The flesh is creamy white, very mild, tender and of excellent flavor. The variety keeps well if thoroughly ripened and is very desirable for

shipping for fall and early winter use. It is one of the best of the large European sorts that has become thoroughly acclimated in America and is exceptionally productive under proper conditions.

Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.25.

White

PORTUGAL OR AMERICAN SILVER-SKIN—One of the leading white sorts, beautiful shape and mild flavor. The bulbs are flat in shape and mature early. Handsome in appearance, with a clear white skin as beautiful as glisten-

ONIONS—Continued

ing silver. The flesh is of mild delicious flavor. It is largely used for growing sets on account of its fine shape when small, and also for its good keeping qualities. It is also extensively used as a pickling onion, for which purpose it is well adapted. Pkt., 5c; oz., 30c; 2 oz., 50c; ¼ lb., 85c; ½ lb., \$1.50; 1 lb., \$2.75.

SOUTHPORT GLOBE—The superior quality of this wonderful variety is famed the world over. Its mild, delicious flavor and exceptionally attractive appearance have won great prominence. It is a most beautiful onion, of superb eating quality. Handsome, white globe shaped, flesh fine and very white, rich and sweet. It is also one of the best keepers of the silver skinned varieties. A veritable ball of silver, with thin, delicate, pure white skin. It will average from 2 to 2½ inches in diameter, and produces large yields. As soon as harvested they should be stored away in a cool, dark shed to keep them from discoloring. Pkt. 5c; oz., 30c; 2 oz., 55c; ¼ lb., 90c; ½ lb., \$1.65; 1 lb., \$3.00.

SETS



BOTTOM SETS—Are grown from seed that has been sown too thick to attain a large size. The small onions thus obtained are planted out, and are ready in a short time to pull as green onions for the table or bunched for the market.

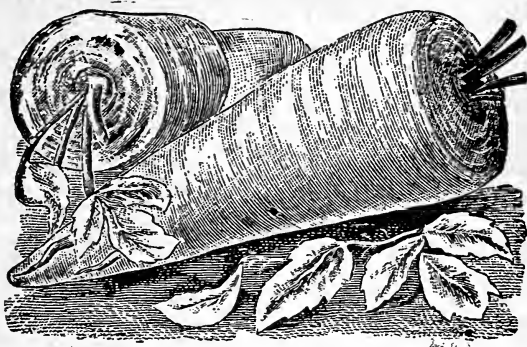
YELLOW—Lb., 25c, postpaid. At purchaser's expense, 10 lbs., \$1.50. For large quantities, write for prices, stating quantity wanted.

Parsnips

The value of the Parsnip as a culinary vegetable is well known but is not generally appreciated at its full value for stock feeding. On favorable soil it yields an immense crop of roots, more nutritious than turnips and very valuable for dairy stock.

CULTURE—Parsnips do the best in rich, deep soil, but will make good roots on any soil which is deep and mellow and moderately rich. As the seed is sometimes slow to germinate, it should be sown as early as possible.

IMPROVED GUERNSEY (Improved Half-Long)—A greatly improved and wonderfully fine strain of Guernsey parsnip. It is a very heavy cropper. The roots are very smooth, the flesh is finely grained and of most excellent quality.



LONG SMOOTH OR HOLLOW CROWN (Abbott's Improved Long Sugar or Long White Dutch Parsnip)—A great cropper; tender, sugary and considered the best for general cultivation. Parsnips are improved by remaining exposed to the frost.

Both varieties of parsnips: Pkt., 5c; oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 50c; 1 lb., 9c. At purchaser's expense, 1 lb., 80c; 5 lbs., \$3.75; 10 lbs., \$7.00.

PARSLEY



Very useful for flavoring soups, meats and for garnishing. The green leaves are used for flavoring.

CHAMPION, MOSS CURLED—A compact grower, finely cut and much curled variety of bright green color. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 35c; ½ lb., 60c; 1 lb., \$1.00.

PEANUTS

The peanut thrives and produces best on a light, sandy, fertile soil with a good clay subsoil. It possesses a long tap-root which extends deep into the earth. Lb., 50c, postpaid.

Peas, Garden

Our peas are grown in the Inland Empire under our own supervision and have been very carefully rogued by us, thus insuring peas of the very best possible type. They have been grown by men of experience and in the very choicest places of the Inland Empire.

PEAS—Continued.

Extra Early

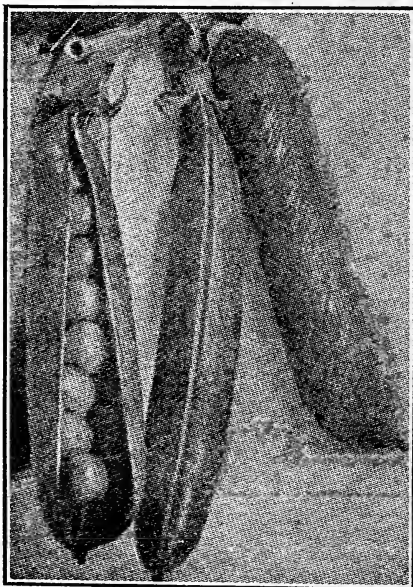
ALASKA OR EARLIEST OF ALL—Earliest and best of all of the blue smooth varieties. A smooth, blue pea, which in evenness of growth of vine and early maturity of pods is unequaled by any other pea. Vines two to two and one-half feet high. A great favorite with our market gardeners for fall and early spring planting. Lb., 35c, postage paid. At purchaser's expense, Lb., 25c; 5 lbs., \$1.15; 10 lbs., \$2.00; 25 lbs., \$4.50; 50 lbs., \$8.00; 100 lbs., \$15.00.

American Wonder, Little Gem and Pilot: Lb., postpaid, 45c. At purchaser's expense, lb., 35c; 5 lbs., \$1.75; 10 lbs., \$3.25.

AMERICAN WONDER—The earliest and best of the wrinkled sort. A great favorite for family use. Has stout, branching vines about 10 or 12 inches high, and covered with well-filled pods, containing sweet, tender and well-flavored peas.

LITTLE GEM, McCLEAN'S—The vines grow about 18 inches in length, producing well-filled pods of from 2½ to 3 inches long. The peas are green, wrinkled, sweet and delicious.

"PILOT"—EXTRA EARLY—The Pilot is "far and away ahead" of all other early round-seeded first-early peas. The pods and peas are nearly as large as those of Gradus, as early as the best selected small smooth-seeded extra-earlies. They can be planted much earlier than Gradus, and while not wrinkled, the peas are almost equal in flavor. The vines, of vigorous growth, attain a height of three feet and bear a large proportion of pods in pairs. Our stock is very limited.



Gradus

American Wonder, Little Gem and Pilot. Lb., 45c., postpaid; at purchaser's expense, lb., 35c; 5 lbs., \$1.75; 10 lbs., \$3.25.

Second Early

Gradus, Telephone and Thomas Laxton: Lb., 45c, postpaid. At purchaser's expense, 5 lbs., \$1.75; 10 lbs., \$3.25.

GRADUS—This bears pods of large size, and combines quality with earliness. It is very hardy, can be planted fully as early as the smooth peas; grows vigorously and healthy; pods are large, well filled, containing 7 to 9 peas; vines two and a half feet in height; very prolific. The quality and flavor are delicious and the peas remain tender and sweet for a long time.

TELEPHONE, DWARF—Produces handsome long pods. A great favorite with our market gardeners. Immensely productive, of the finest quality and excellent sugary flavor; vines very strong, growing from 18 to 24 inches high. The pods are of large size, filled with large, delicious peas.



Thomas Laxton.

THOMAS LAXTON—This is a very early wrinkled variety of great merit. The vines are vigorous, of medium height, about three feet, similar to those of Gradus, but darker in color, hardier and more productive. The pods are large, often four inches long, with square ends, well filled. The green peas are very large, of fine deep color and unsurpassed in quality. One of the very best sorts for the market and home garden.

Gradus, Telephone and Thomas Laxton: Lb., 45c, postpaid. At purchaser's expense, 5 lbs., \$1.75; 10 lbs., \$3.25.

MARKET GARDEN—HORSFORD'S—This variety strongly resembles the Gem in habit of growth, but is about one-third taller. Foliage dark green, pods light colored and straight, about 2½ inches long and blunt. Vines grow

PEAS—Continued.

from 26 to 30 inches long. Seed green, of medium size. A very popular pea both with canners and market gardeners on account of its excellent quality. Pods grow mostly in pairs and are therefore quickly and easily picked. Lb., 40c, postpaid. At purchaser's expense, lb., 30c; 5 lbs., \$1.50; 10 lbs., \$2.50.

Late

MELTING SUGAR—The kind that has sweet, broad pods, and are used the same way as snap and string beans. This is the most popular of the edible podded varieties. The pods are large, straight, very tender and finely flavored. Vines medium height.

Lb., 45c, postpaid. At purchaser's expense, 5 lbs., \$1.75; 10 lbs., \$3.25.

See page for Canadian, Bangallas and Cow Peas.

Peppers

CULTURE—Sow the seed early in hotbeds, or later, when the weather becomes warm. In open beds; when two or three inches high, transplant to a warm, mellow soil, in rows eighteen inches apart at one foot apart in the row.



CHINESE GIANT—An enormous fruiting variety, double the size of Ruby King, averaging 12 to 15 inches in circumference. Notwithstanding its large size, it is very early and very prolific. Plants are healthy, well branched, about two feet high and carry an enormous load of fruit, often having the appearance of being bunched together. Flesh is thick tender, mild and sweet, and is unexcelled for salad or stuffed as mangoes. They can be sliced and eaten like tomatoes. When ripe the peppers are a rich, glossy scarlet, making them of unusually fine appearance. Pkt., 10c; oz., \$1.00; 2 oz., \$1.75; ¼ lb., \$3.00.

All varieties of peppers not otherwise quoted: Pkt., 10c; oz., 75c; 2 oz., \$1.25; ¼ lb., \$2.25.

LARGE BELL OR BULL NOSE—Sometimes called Sweet Mountain. The plants are vigorous, about two feet high, compact and very productive, ripening their crop uniformly and early. The fruits are large, growing from three to four inches in length, with thick, mild flesh of excellent quality for use in salads and mangoes,

or stuffed peppers. The color is deep green when fruit is young, bright crimson when ripe.

LONG RED CAYENNE—Brilliant coral-red pods, three or four inches long, and a prolific bearer; very pungent and used very largely with pickles when green.

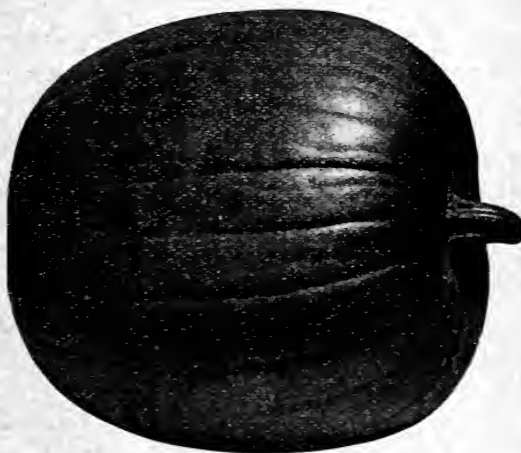
RED CHILI—Small, bright red peppers, very hot and pungent, and generally used for making "pepper sauce"; very prolific.

RUBY KING—Very large and attractive. The plants are about two and one-half feet high, vigorous, compact and productive. The fruits are often four to four and one-half inches long and of deep green color when young, bright red when ripe. The flesh is thick and mild flavored. One of the best varieties for mangoes or stuffed peppers.

All varieties of Peppers not otherwise quoted: Pkt., 10c; oz., 75c; 2 oz., \$1.25; ¼ lb., \$2.25.

Pumpkins

CULTURE—Sow in good soil, when the ground has become warm, in hills eight or ten feet apart each way, or in fields of corn about every fourth hill.



Connecticut Field

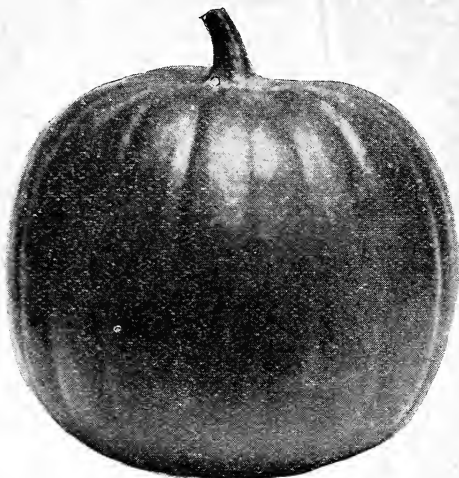
All pumpkins not otherwise quoted: Oz., 15c; 2 oz., 25c; ¼ lb., 35c; ½ lb., 60c; 1 lb., \$1.00. At purchaser's expense, 5 lbs., \$4.50; 10 lbs., \$8.50.

CONNECTICUT FIELD—A productive, large, orange-colored field pumpkin, usually grown for stock feeding, but it makes good pies.

KENTUCKY FIELD OR LARGE CHEESE—Fruit flattened, the diameter being two or three times more than the length. Skin mottled light green and yellow, changing to rich cream color as it matures; flesh tender and of excellent quality.

Sole Inland Agent for the celebrated machine made Thatcher Milk Bottles.

PUMPKINS—Continued.



Early Sugar

SUGAR—This variety is small, but of most excellent quality for pies. Fruits deep orange, eight to ten inches in diameter, round or somewhat flattened and slightly ribbed. Flesh rich deep yellow, fine grained and very sweet.

All pumpkins not otherwise quoted: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 35c; ½ lb., 60c; 1 lb., \$1.00. At purchaser's expense, 5 lbs., \$4.50; 10 lbs., \$8.50.

MAMMOTH PRIZE—The largest pumpkin grown; has attained a weight of 235 pounds. If you wish to see just how large a pumpkin can grow, try the Mammoth Prize. The quality is excellent. Pkt., 5c; oz., 20c; 2 oz., 35c; ¼ lb., 60c; ½ lb., 85c; 1 lb., \$1.50. At purchaser's expense, lb., \$1.40; 5 lbs., \$6.50; 10 lbs., \$12.00.

RADISHES

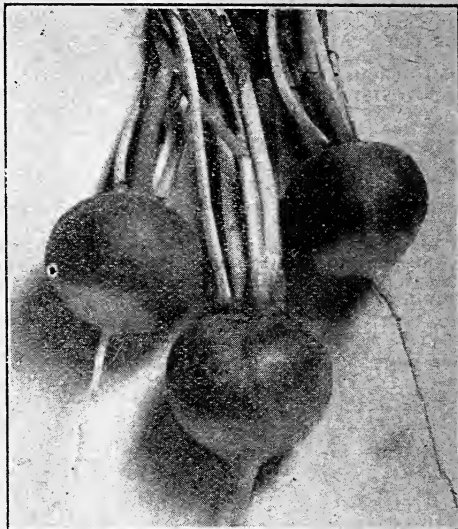
Is there any more appetizing vegetable than the radish? In the spring we welcome the early, so-called cherry-stone radishes, and during the summer and fall we all enjoy the delicious long and olive-shaped varieties. Radishes are delicious during the entire season if successive sowings are made. There is not a month from April to November that you need be without Radishes. If you have a hot-bed, they can be grown every month in the year.

CULTURE—For open ground culture sow in rich, sandy soil as soon in the spring as it is fit to work, in drills 12 to 18 inches apart and thin out the plants to prevent crowding. A good dressing of nitrate of soda will greatly stimulate growth and insure tender, brittle roots.

Turnip-Rooted, Early

CRIMSON GIANT—The largest early scarlet turnip-shaped radish. A very early radish, double the size of any of the other early turnip-shaped type, but notwithstanding its immense size, does not get hollow and pithy. The flesh is a sparkling white, solid, crisp and juicy, and of the mildest flavor. Excellent for both forcing and open ground.

SCARLET GLOBE—Similar in form to the Scarlet Turnip-Rooted, but much darker in color; flesh white, very crisp and tender, top small, well adapted for growing in frames.



Scarlet White Tipped.

SCARLET, WHITE TIPPED—The favorite variety for outdoor cultivation; medium size, uniform shape; color bright scarlet, with white tip, which makes it most attractive. It grows quickly; flesh white, crisp and of the best quality.

The three foregoing varieties: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; lb., \$1.00.

Olive Shaped, Medium Early

FRENCH BREAKFAST, OR HALF-LONG WHITE TIPPED—Medium size, of quick growth, crisp and tender; terminates more abruptly than the Half-Long Scarlet, lower end of tap root white. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb. \$1.00.

Long, Late

Chartier, Icicle, Long Scarlet and Strasburg: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; lb. \$1.00.

CHARTIER, IMPROVED—Roots long, tapering rather abruptly and attaining a very large size. Of rapid growth, it is soon ready for the table, remaining crisp and tender until fully grown. Color, scarlet above, shading into white at the tip. Flesh white and mild flavored.

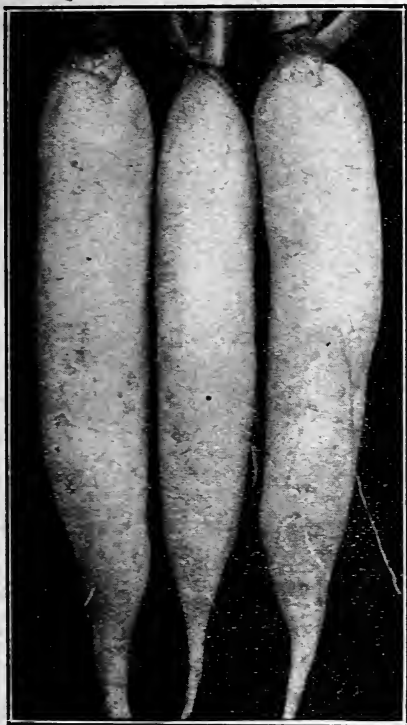
ICICLE, WHITE—The finest of the pure white varieties. They are long and slender and clear, pure white, making them very attractive when on sale and on the table. It is crisp and tender both when young and until it attains a large size, thus remaining in condition for use for considerable time. Roots grow four inches in length and half an inch in diameter; they retain their crispness and fresh mild flavor until fully six inches long and an inch in diameter.

LONG SCARLET, RED—The leading variety either for the family or market garden. From six to eight inches long, standing nearly half above the ground; bright scarlet, smooth, crisp, tender and mild.

STRASSBURG, WHITE—Of handsome, oblong, tapering shape, both skin and flesh being pure white. The flesh is firm, brittle and tender and retains its crispness even if old and large. Excellent for summer use. Very popular because it remains fit for use a long time and does not get pithy. Sometimes called the Sandwich radish.

Chartier, Icicle, Long Scarlet and Strasburg: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; lb., \$1.00.

RADISHES—Continued



White Icicle

Winter

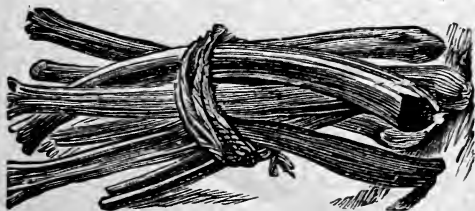
BLACK SPANISH, LONG—Very hardy and good for winter use. Will keep good all winter. The roots, which present a rusty, black appearance, are large, firm and not liable to become pithy.

CHINA ROSE—One of the best fall and winter varieties. Half-long shape; upper part bright crimson, shading to white. Flesh white, firm, tender and of superior quality.

CALIFORNIA MAMMOTH, OR WHITE CHI-NA—Very large and cylindrical, terminating abruptly with little tap-root; mild and tender, and keeps well all winter. The skin and flesh are of a transparent white.

All varieties of winter radishes: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00.

RHUBARB OR PIEPLANT



CULTURE—Sow in drills an inch deep, and thin out the plants to six inches apart. Transplant the young plants, setting them four to six feet apart each way. The stalks should not

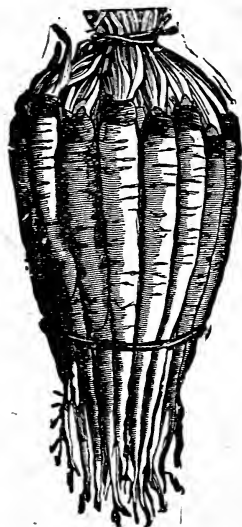
be plucked until the second year, and the plant never allowed to exhaust itself by running to seed.

VICTORIA OR MAMMOTH—Very large; the finest cooking variety. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 60c; 1 lb., \$1.00.

SALSIFY OR
VEGETABLE
OYSTER

CULTURE—Sow early and quite deep, giving the general culture recommended for parsnips. The roots are perfectly hardy, and may remain out all winter, but should be dug early in the spring, as they deteriorate rapidly after growth commences.

MAMMOTH SAND- WICH ISLAND—Of superior Quality. Pure white. Very meaty and of fine flavor. Grows uniformly large. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; 1 lb., \$2.25.



SPINACH

CULTURE—It is one of the most easily managed of all vegetables, requiring but little culture. For spring and summer use sow broadcast or in drills as early as possible. Then sow at intervals for successive crops. For very early spring use it is sometimes sown in August or September, protecting it slightly during the winter.



LONG STANDING—An improved variety, slow going to seed, and perhaps the best for general use.

THICK LEAVED, IMPROVED—A variety which grows very rapidly, forming a cluster of large, very thick, slightly savoyed leaves of fine color and quality when cooked. Best for market gardeners.

WINTER, PRICKLY—A very hardy variety; will withstand the cold of winter. Seed prickly. Leaves long, pointed, and of good quality.

All varieties of spinach: Pkt., 5c; oz., 10c; 2 oz., 15c; ¼ lb., 25c; ½ lb., 40c; 1 lb., 75c. At purchaser's expense, 5 lbs., \$3.50; 10 lbs., \$6.50.

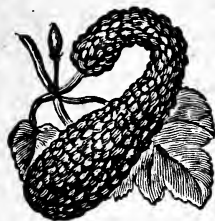
Squash

CULTURE—Delay sowing until the soil has become warm. The general principles of culture are the same as those given for cucumbers and melons. The summer varieties should be planted four to six feet apart each way, and

SQUASH—Continued.

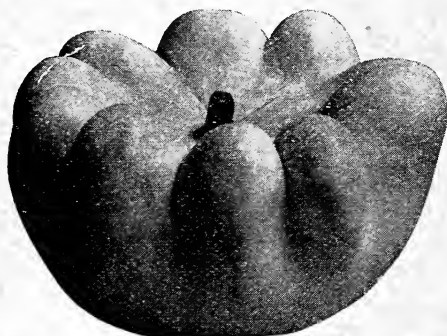
the winter sorts eight to ten. Three plants are sufficient to a hill.

Crookneck, Bush, Scallop and Vegetable Marrow: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25. At purchaser's expense, lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

Summer

Summer Crookneck

CROOKNECK, EARLY YELLOW—An early prolific kind having a solid curved neck; the skin is yellow, thin, hard and very warty, flesh tender and of good quality.



BUSH SCALLOP, EARLY WHITE—This is the well-known, very early, somewhat flattened, scalloped bush squash. The color is creamy white with comparatively smooth surface. The vines are vigorous and very productive. This variety is also known as Patty Pan or Cymling.

ENGLISH VEGETABLE MARROW—A favorite English variety, bearing freely oblong, dull yellow fruit 10 to 15 inches in length by 4 to 5 inches in diameter; flesh before ripe, tender, marrowy and delicious.

Crookneck, Bush, Scallop and Vegetable Marrow: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25. At purchaser's expense, 1 lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

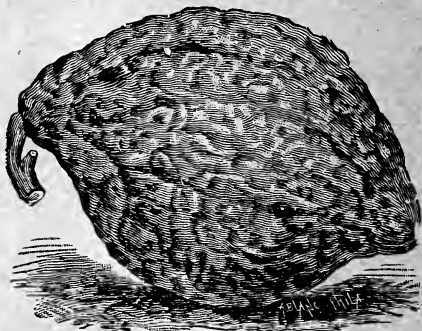
Winter

All varieties of winter squash: Oz., 15c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; lb., \$1.50. At purchaser's expense, lb., \$1.40; 5 lbs., \$6.50; 10 lbs., \$12.00.

CHILI MAMMOTH—Attains an enormous size, often reaching a weight of 200 pounds, and not infrequently weighs 300 pounds. Despite its size, its flesh is rich and fine flavored. It is especially desirable for stock feeding, and exhibition purposes. For feeding cows it is best to cut them up, mixing with ground corn. As the yield an acre will run from 8 to 15 tons, it will thus produce a very cheap and nutritious feed. It is well adapted for feeding to swine, all that is necessary is to break the squashes open.

DELICIOUS—The increasing demand for this squash shows conclusively that its high quality is very generally known and appreciated. Many prefer it to Hubbard, so long regarded as the standard of excellence. Delicious as a fall and winter variety. Medium size. The fruit is

moderately hard, usually dark green, but sometimes lighter in color and mottled, and are without any hard shell. The flesh is thick, very fine grained and bright yellow in color. It is considered by many to be the best for markets where quality is appreciated as well as very desirable for home garden.



HUBBARD, CHICAGO WARTY—One of the best of the winter squashes. The vines are vigorous and very productive. The fruit is large, heavy and warty, with a very hard shell. The skin is uniformly dark bronze green. The flesh is bright orange-yellow, fine grained, thick, dry and richly flavored. This squash can be kept in good condition until spring. It is esteemed by many to be as good baked as the sweet potato.

HUBBARD GOLDEN—The vines of this variety are vigorous and very productive. The fruit is of medium size, weighing from six to eight pounds and in shape is like the Hubbard, although in condition for use decidedly earlier. They are wonderfully long keepers and can be held over in good condition for spring use. The shell is moderately warty, hard, strong and of a beautiful orange-red color, except for a bit of olive-green on the blossom end. The flesh is deep-orange, dry, fine grained and richly flavored. A very superior table variety.

PIKE'S PEAK—Large oval, tapering at the blossom end. Skin dark olive-green; light golden flesh of excellent quality. Vines vigorous and very productive.

All varieties of winter squash: Pkt., 5c; oz., 15c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; lb., \$1.50. At purchaser's expense, lb., \$1.40; 5 lbs., \$6.50; 10 lbs., \$12.00.

Tomatoes

CULTURE—Sow early in hotbeds and as soon as they have four leaves transplant into shallow boxes. Harden off and set out as soon as danger of frost is over.

To insure best results in respect to early ripening train up and trim the vines. When the plants have been properly started and are six to ten inches high they will begin to throw out branches. Select the largest and most vigorous of these and pinch off all others except this one and the main stem. Care must be exercised not to pinch off the fruiting branches which, as they appear, can be distinguished by the buds that are formed very early. In a short time these two remaining branches will become equally vigorous and as ordinary varieties will grow four to six feet high during the season, they should be securely tied at intervals of about ten inches to a long stake.

Fruit will set to almost any height desired if all side branches are kept trimmed off at

TOMATOES—Continued.

intervals of a week. By such a method of training and trimming the fruits are kept clear from the ground and with free access of sunlight they ripen much earlier; the vitality, otherwise exhausted in superfluous branches and leaves, is utilized in forming fruits of largest size, greatest perfection of shape and best quality.

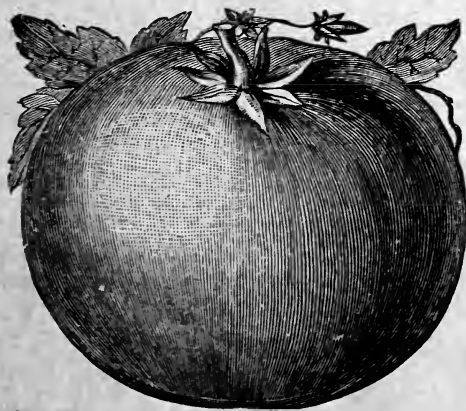
BONNIE BEST—A week later than Earliana, but with larger, smoother and sweeter fruits and also surpassing same in productiveness, as the vines bear continuously throughout the season. The fruits are very large, handsome, very solid and deep through. Of bright scarlet color, ripen right up to the stem without any cracks or green core. Flesh thick, with comparatively few seeds and of sweet flavor. A good shipper. Bright red, smooth, medium sized, solid and very prolific. Very popular wherever it has been tried as it has given almost universal satisfaction. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.75; lb., \$3.00.

CHALK'S EARLY JEWEL—The large, handsome fruits are very solid and deep through, being almost round or ball shaped. Color is brightest scarlet, ripening right up to the stem without any cracks. The foliage is rather sparse and open, admitting the sunlight to the center of each plant, so that all the fruit is thoroughly ripened. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.75; lb., \$3.00.

CORELESS—A new bright red tomato of the globe-shaped type, almost round. It is a strong grower and a heavy cropper, a grand slicing variety and ripens all over and through. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.75; lb., \$3.00.

DWARF CHAMPION, OR TREE TOMATO—The plant is dwarf and compact; fruit medium size, rich, glossy red, smooth and solid; fine for private gardens. Pkt., 5c; oz., 40c; 2 oz., 70c; ¼ lb., \$1.25; ½ lb., \$2.00; lb., \$3.50.

EARLIANA, SPARKS'—The earliest large and smooth tomato. The most perfect of all tomatoes. Of large, uniform size and beautiful red color. Quality almost beyond praise. A most vigorous grower and heavy bearer, continuing until frost. Spark's Earliana is as near seedless as any tomato, giving but 12 to 15 pounds of seed to the acre, while other varieties yield from 75 to 100 pounds to the acre. Pkt., 5c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.00; ½ lb., \$1.75; lb., \$3.00.



Earliana

JOHN BAER—An extra early scarlet fruited variety of superior merit. The vines are very hardy and exceptionally productive. The fruits are the largest of the extra early sorts and are most attractive in color. They are nearly round, smooth, firm and of excellent quality. It is one of the very earliest to ripen its first fruits and it continues to furnish marketable fruits much longer than other very early varieties. It is an invaluable sort for market gardeners, shippers and canners. Pkt., 5c; oz., 40c; 2 oz., 70c; ¼ lb., \$1.25; ½ lb., \$2.00; lb., \$3.50.

MOORE'S EARLY—This variety is of late introduction and is claimed by the originator to be earlier than Earliana; it is said to be the earliest tomato grown. Medium size with a sparse vine, and sets its fruit very early. Pkt., 5c; oz., 40c; 2 oz., 70c; ¼ lb., \$1.25; ½ lb., \$2.00; lb., \$3.50.

STONE—Fine for main crop; very large; color bright scarlet; very smooth, ripening up to the stem without a crack; exceedingly solid and firm fleshed; an excellent shipper; quality the very best. Oz., 30c; 2 oz., 50c; ¼ lb., 90c; ½ lb., \$1.50; lb., \$2.50.

Small Varieties

GROUND CHERRY OR HUSK—Plants of low, spreading growth and immensely productive. The small yellow fruits are each enclosed in a husk or covering. When ripe the fruits are an inch in diameter, bright yellow and of very sweet flavor; highly esteemed for preserving.

PEACH—This is a distinct and very attractive tomato for preserving, eating from the hand or table. Fruit resembles a peach in shape, size and color. Flesh tender and of good flavor.

YELLOW PEAR-SHAPED—A small-fruited variety, which is golden-yellow. It is very useful for salads. The three foregoing small varieties: Pkt., 5c; oz., 50c; 2 oz., 90c; ¼ lb., \$1.50; ½ lb., \$2.50; 1 lb., \$4.50.

Turnips

The value of Turnips and Ruta Bagas for feeding stock in fall and winter is not fully appreciated, as they are much liked by all kinds of stock and serve to keep them in good condition. We recommend that farmers increase their sowings largely, for we are sure the crop will prove remunerative for stock feeding as well as for table use when the roots are comparatively small.

Both of these wholesome vegetables are very easily affected in their form and flavor by soil, climate, and mode of culture. The turnip plant is distinguished from the ruta baga by its rougher leaves; the root usually matures earlier and is smoother and more symmetrical.

CULTURE—For early use sow as soon as the ground can be worked, in drills 15 to 18 inches apart, and half an inch deep. For winter use, sow during July, as early sowings are unfit for winter use.

All varieties of turnips unless otherwise quoted: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25. At purchaser's expense, lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

ABERDEEN, YELLOW—Round, medium size, light yellow; strained with purple on top; produces a large crop; flesh very firm, tender and sweet.

TURNIPS—Continued.

AMBER GLOBE.—One of the best yellow fleshed varieties, grown usually for stock feeding. The roots are of large size and of globular shape. The skin is clear yellow except the top which is tinged with green. The flesh is light yellow, fine grained and sweet. This variety keeps well and is a good cropper.

COWHORN.—Sometimes called Long White. Is slightly crooked, pure white, except a little shade of green at the top. Grows half out of the ground and is of very rapid growth; is delicate and well flavored. An immense yielder.

EARLY FLAT WHITE DUTCH, STRAPPED LEAVED.—A leading white-fleshed variety, and one of the best, either for family, market garden or field crop; of medium size and produces a large crop. The flesh is firm, but tender, and of a superior rich, buttery flavor.

MILAN, WHITE.—The earliest of all. The earliest turnip and the best quality in its class. A fine, snowy-white color. The skin is so smooth and neat as to seem polished. The foliage is short. Size medium, and the flesh is white, tender and smooth grained. Pkt., 2 for 15c; oz., 25c; 2 oz., 40c; ¼ lb., 75c; ½ lb., \$1.25; lb., \$2.25.

ORANGE JELLY OR GOLDEN BALL.—A distinct variety, one of the most delicately flavored of the yellow fleshed turnips. The tops are small. The roots are medium sized, round, very smooth and with deeper yellow skin than most of this class. The flesh is firm, crisp and of most excellent quality. The roots are in best condition for table use when about three inches in diameter. This variety is of quick growth, adapted to spring as well as fall planting, and keeps exceptionally well. Known also as Robertson's Golden Ball.

POMERANIAN WHITE GLOBE, STRAPPED LEAVED.—This is a free growing, rough leaved sort; perfect globe shape; skin white and smooth; leaves dark green.

PURPLE TOP WHITE GLOBE.—A perfect globe shape, with smooth, white skin; flesh pure white, firm and crisp. Purple above ground.

SNOWBALL.—A perfectly globe-shaped, white skinned turnip. The flesh is fine grained, firm and of very delicate flavor. Very early.

WHITE EGG.—A quick growing egg-shaped, perfectly smooth, pure white variety, with small top and rough leaves. It grows half out of the ground; the flesh is very sweet, firm and mild.

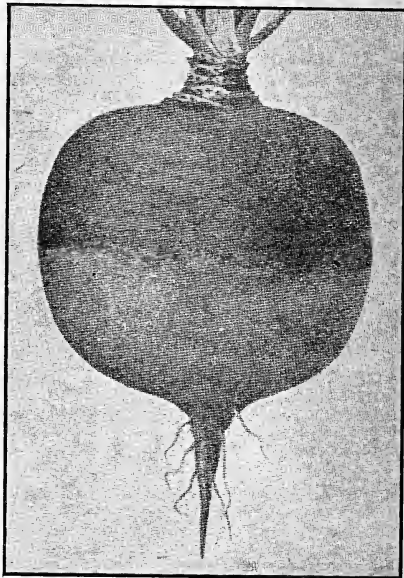
All varieties of turnips unless otherwise quoted: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; 1 lb., \$1.25. At purchaser's expense, 1 lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.

PURPLE TOP, STRAPPED LEAVED, EARLY.—One of the best and most universally grown; small, erect top, round, flat; purplish red above; white underneath; flesh firm, but very tender and sweet.

Rutabagas or Swedes

For feeding stock in fall and winter there is nothing superior to rutabagas, as they are much liked by all kinds of stock and serve to keep them in good condition. We desire to call special attention to an improved Bangholm. If you have not used this, give it a trial and we believe you will be more than pleased.

(See note on turnips).



Danish Purple Top.

BANGHOLM PAJBBERG (Improved Danish Purple Top)—This variety was awarded a first-class certificate by the Danish government for heaviest yield, having given 49 tons per acre. This purple top sort is excellent both in shape and quality. The roots are of large size, slightly tankard shaped, with small neck and few or no side roots. The skin is yellow with purple top. The flesh is yellow, sweet and solid.

SWEET RUSSIAN OR WHITE.—Hardy, easily grown, large, and yields as much as the best yellow kinds; flesh free-grained and solid, but tender and well flavored; good for stock and desirable for the table.

YELLOW SWEDE OR RUTABAGA.—Shape oblong, dull reddish color above ground, but yellow underneath; is harder than the common turnip and will keep till spring.

The three foregoing rutabagas: Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25. At purchaser's expense, lb., \$1.15; 5 lbs., \$5.50; 10 lbs., \$10.00.



DISEASE AND INSECT PREVENTION

The ordinary blights are usually overcome by spraying with Bordeaux mixture. There are some diseases, however, which can not be overcome, and when trouble appears that does not yield to treatment the affected plants should be taken up and burned to prevent the spread of the infection to others.

Mildew

For the control of mildew, pulverized sulphur or grape dust, is dusted full strength on the diseased plants. A tin can with small holes punched in the bottom makes a good sifter for this purpose, or a cheap flour sifter may be used. The holes in a flour sifter are the proper size for this purpose.

The Sucking Insects

For the destruction of insects which suck the sap of plants, such as the true bugs and the plant lice, or aphids, it is necessary to use a mixture which kills by contact or substances which smother. Aphids, or plant lice, usually collect on the underside of leaves, causing them to crumple.

To destroy these sucking insects use nicotine sulphate solution.

The Eating Insects

The eating insects, or those which eat fruit or foliage, may usually be killed by using a spray of poisonous solution or by dusting poison powders on the plants attacked. Arsenate of lead is a favorite poison for this purpose, and may be used in spray or powder, but it must be handled with care as it is poisonous to human beings. It should never be applied to vegetables that are soon to be used, nor on cabbage or cauliflower after the heads have begun to form.

Paris green has long been used for protection, but arsenate of lead is now used much more extensively and is considered better.

Poisoned Bait

Poisoned bait is useful against cutworms and slugs. Small portions of the bait should be placed around plants subject to attack by them. The pests feed at night and hide under chips or other objects during the day. Bait should be placed beneath these. Poisoned bait may be made as follows:

Wheat bran 1 pound
White arsenic, powdered ½-ounce
Cheap sirup 1 or 2 ounces

Water to make a thick mash of the mixture. The bran and the white arsenic should be mixed. Dilute the sirup with a little water and pour this over the bran and white arsenic. Stir well. Add enough water to make a thick mash.

Liquid Poisoned Bait

Sodium Arsenate 1 ounce
Water 4 quarts
Molasses 1 pint

Dissolve the sodium arsenate in boiling water and add the molasses. Flavor by adding chopped pieces of vegetables of the kind which is to be sprayed. Apply with a whisk broom.

Take No Chances

Too much emphasis can not be placed on the need for taking precautions against diseases and insects. Familiarize yourself with such diseases and insects as prevail in your neighborhood on the crops you plan to raise. Then provide yourself in advance with remedies and equipment. Watch carefully for first signs of trouble and apply remedies at once. Inspect your garden every two or three days.

VEGETABLE DISEASES, INSECTS, REMEDIES

NOTE: It is important that immediate attention be given insects and diseases as soon as they appear. Delay in spraying or removal may prove fatal.

ASPARAGUS

Rust—(Rusty appearance of leaves and stems)
—Procure rust resistant variety, such as Palmetto.

Beetles—(Eat young stems and leaves).

Remedy: On young plants spray with arsenate of lead when pests appear, repeating 10 days later and again 10 days

later if necessary. And an ounce of laundry soap per gallon of spray to make it stick to the foliage. Do not use arsenate of lead on new stems used for food during cutting season. On old plants, spray after cutting season. Nicotine sulphate sprayed on the young insects will kill all it hits.

BEETS

Leaf Spot—(Reddish and purple spots, turning ashy gray)—Usually not affecting garden beets.

Remedy: Spray with Bordeaux mixture when plants are 3 to 4 inches high, repeating 2 and 4 weeks later.

Web Worm—(Eats the leaves).

Remedy: Spray with arsenate of lead when worms appear; repeat when necessary.

Spinach Aphids—(Sucks sap from leaves).

Remedy: Spray with nicotine sulphate when pests appear and repeat when necessary. In order to strike the aphids the spray must be directed against the undersides of the leaves.

Beet-root Aphids—(Sucks sap from roots).

Remedy: Pour a small amount of nicotine sulphate spray around roots and repeat if necessary.

BUSH BEANS

Anthrachnose—(Dark, sunken spots, scab-like, on pods; spots on leaves).—Pick and burn diseased pods. In saving seed discard those from diseased plants, as seed carry the infection.

Leaf Beetles—(Very small, dark or pale stripes; eat leaves).

Remedy: Spray with arsenate of lead when pests appear, repeat in 10 days and later if necessary. Bordeaux mixture repels but does not kill.

Aphids or Plant Lice—(Suck sap from plant and make leaves crumple).

Remedy: Spray with nicotine sulphate when pests appear, repeating when and as often as necessary. Crumpled leaves protect lice from spray, and should be picked and burned. Apply spray to underside of leaves, to strike aphids.

Bacterial Blight—(Water soaked spots on leaves and pods).—No satisfactory remedy. Pull up and burn plants.

Downy Mildew—(Thick white growth).—Burn all diseased pods. Spray with Bordeaux mixture, repeating every ten days if necessary.

Beets—Swiss Chard

Leaf Spot—(Symptoms same as with beets).

Remedy: When disease appears, spray

as directed for beets. (Usually no spraying will be found necessary). Wash sprayed leaves well before using.

CABBAGE AND CAULIFLOWER

Club Root—(Root swells and decays).—Pull up and burn plants.

Preventive: In spring apply 1 lb. lime to each 8 sq. feet of ground before setting out plants.

Black Rot—(Leaves turn yellow, then brown and black and decay. Pull up and burn plants).

Preventive: Soak seed 15 minutes in solution made of $\frac{1}{4}$ -oz. formalin and 3 pints of water; rinse in clean water; plant at once.

Yellows—(Leaves turn yellow, then brown, and drop).—Pull up and burn plants.

Preventive: Treat seed as for black rot.

Cabbage Worms—(Eat leaves).

Remedy: When worms appear spray with arsenate of lead, repeating if necessary before heads form. Add an ounce of laundry soap per gallon of spray to make it stick to the leaves. Do not use arsenate of lead later than 3 weeks before using or marketing cabbage.

Aphids or Lice—(Suck sap from leaves).

Remedy: Spray with nicotine sulphate solution when pests appear; repeat if necessary.

Cabbage Looper—(Eats leaves).

Remedy: Treat as for cabbage worms.

Cabbage Maggots—(Tunnel inside of roots).

Preventive: When plants are set out take a piece of tarred building paper 2 or 3 inches in diameter, cut a slit from one side to center, and 4 or 5 slits at center. Fit this around stem by slipping plant through the long slit, and press paper firmly against ground, to prevent young maggots from reaching root.

Black Leg—(Diseased, sunken areas on stem, leaf, stem and leaves, plant becoming purplish).—There is no remedy. Pull up and burn plants.

Preventive: Disinfect seed for 10 minutes with 1 tablet of corrosive sublimate mixed in 1 pint of water.

Cutworms—(Dark colored, eat young plants off at surface of earth).

Remedy: Spread poisoned bran mash over ground before setting out plants; spread around plants when set. Afterward spread poisoned bait around plants as necessary to control worms. It is wise to wrap paper around stem from leaves to root just before setting out. Cutworms are especially abundant where sod has grown.

CELERY AND CELERIAC

Blight or Leaf Spot—(Gray or brown spots, drooping stems).

Remedy: Spray young seedlings, in seed box or seed bed, with Bordeaux mixture. Spray again as soon as set in garden, repeating 10 to 14 days later. Repeat again if necessary. Spraying in seed bed must not be neglected if disease appears.

Damping Off—(Small seedlings dying in seed bed).

Preventive: Care should be taken to water and partially shade the young seedlings in hot and dry weather. As soon as seed are planted cover bed with thin layer of sand.

CORN

Smut—(Large, black, irregular swellings on ears or tops). The only remedy is to cut off and burn the smut swellings.

Cornear Worms—(Bore through husk and eat the young kernels). Kill all worms which are found when husking corn for use.

Cutworms—(A dark worm which cuts plant off at surface of earth when plant is small).

Remedy: Use poisoned bait in the same manner prescribed for cabbage. Repeat if necessary. Being a night worker the cutworm is usually found in the morning in the ground by cut off plants. Dig out and kill.

Seed Corn Maggot—(Tunnels in seed, sprouts and stems of plants).—Apply liquid poisoned bait with whisk broom.

CUCUMBERS

Anthraxnose—(Brown spots on leaves).

Remedy: Spray with Bordeaux mixture when plants begin to form vines. Repeat two or three times if necessary, at intervals of 2 weeks.

Downy Mildew—(Yellow spots on leaves).

Remedy: Treat as for anthraxnose.

Wilt—(Leaves droop and wilt quickly).—Pull up and burn plants. Striped beetles act as carriers of this disease and should be controlled carefully.

Sting Bug or Squash Bug—(Sucks sap from leaves and injects an injurious substance).

Remedy: Pick them or shake them into pan of water and kerosene. Destroy egg masses. Place small pieces of boards near hills. The bugs will collect underneath these and may be easily crushed.

Striped Beetle or 12-Spotted Beetle—(Both eat leaves).

Preventive: Cover young plants with protectors of cheesecloth or wire gauze.

Control: Mix arsenate of lead in the Bordeaux mixture which is used for diseases. Another remedy is to cover leaves with tobacco dust. Treatment should be given as soon as beetles appear, or when covers are removed. Repeat 5 days later and again 5 days later, with further repetitions when necessary.

Vine Borer—(Worm which bores into vine at surface of earth).

Remedy: Carefully cut the vine lengthwise, remove borer and kill. As plants grow throw earth over vine at every other joint, in order that new roots may form and to keep the vine growing.

EGGPLANT

Blight or Wilt—(Whole plant wilts).—No remedy. Pull up and burn plants.

Flea Beetle—(Small jumping beetle which eats leaves).

Remedy: Spray with Bordeaux mixture and arsenate of lead combination.

Anthraxnose—(Dark sunken spots in fruit; cracks in leaves).

Remedy: Spray with Bordeaux mixture when plants are set, repeating 10 days later and again 10 days later.

ONIONS

Thrips—(Very small sucking insects, which cause leaves to turn a silver color or whitish, and later to curl and twist).

Remedy: Spray with nicotine sulphate solution when pests appear, repeating once or twice as necessary.

Cutworms—(Dark worms which attack onions as they do corn).

Remedy: Same as with corn.

Onion Maggot—(Eats bulb, inducing decay).—

Remedy: Apply liquid poisoned bait with a whisk broom.

PEAS

Powdery Mildew—(Covers plant with powdery white growth).

Remedy: Use pulverized sulphur or flow-ers of sulphur, or Bordeaux mixture, by sprinkling on plants when mildew appears,

just before bloom appears. Repeat if necessary two weeks later and again 2 weeks later.

Pea Aphis.

Remedy: Same as for bean aphis.

POTATOES

Early Blight—(Brown spots, with concentric rings on leaves. Worst in moist weather).

Remedy: Spray with Bordeaux mixture when plants are 6 inches high. Repeat 2 weeks later and again 2 weeks later.

Late Blight—(Dark brown spots on leaves, appearing water soaked and not having concentric rings. The spots become yellow and the leaves die. Worst in hot, sultry weather, August and September. Lives over winter in seed potatoes).

Remedy: Same as for early blight.

Colorado Potato Beetle—(The common potato bug, which eats leaves).

Remedy: Spray with arsenate of lead when beetles appear. Repeat when and as often as is necessary. Hand picking is effective, as is also knocking the bugs into a pan of water containing some kerosene.

Blister Beetle—(Long black potato bug or old fashioned potato bug. Eats leaves).

Remedy: Same as for Colorado potato beetle.

Flea Beetle—(Small, jumping insect which eats leaves, usually appearing when plant is small).

Remedy: Spray as for Colorado potato beetle.

PUMPKIN

This plant is subject to the same diseases and insects as cucumber, and should be treated the same way.

RUTABAGA

This plant is subject to the same pests as cabbage and should be treated the same way.

RADISH

Cabbage Maggot—(Small worm which tunnels into the radish).

Preventive: Sprinkle tobacco dust along

row when seed is planted, or spread sand on which kerosene has been sprinkled along the row when plants are small. Burn all plants that may be infected.

TURNIP

subject to the same diseases and insects as cabbage, and should be treated the same way.

SPINACH

Aphids—(Suck sap from leaves).

Remedy: Spray under side of leaves with nicotine sulphate, when aphids appear. Repeat a second and third time if necessary.

RHUBARB

Flea Beetle—(Eats small holes in the leaves).

Remedy: Same as for flea beetle of potato, applied when beetles first appear and repeated when necessary.

SQUASH

This plant is subject to the same diseases and insects as cucumbers and should be treated the same way.

TOMATOES

Leaf Spot, or Blight—(Leaves become spotted, turn yellow and drop; stems dry up and fruits drop).

Remedy: Spraying is not entirely effective but is helpful. Spray with Bordeaux mixture while plants are small in seed box or seed bed. Repeat soon after transplanting to garden and repeat again 3 weeks later and every 3 weeks while disease exists.

Fruit Rot—(Decay begins at blossom end of fruit).

Preventive: In the absence of an effective remedy the only safeguard is to cultivate well and be careful to water as the plants need.

Anthraxnose—(Sunken, discolored spots in fruit, followed by decay).

Remedy: Same as for leaf spot.

Wilt—(Causes plant to wilt and die).—Pull up and burn plants.

Tomato Worms—(Large green naked caterpillar, which eats leaves).

Remedy: Pick by hand and destroy, or spray with lead arsenate solution. (These worms do not often appear in large numbers.)

Cutworms—(Dark worms which cut plants off at the surface of earth).

Remedy: Same as with cabbage.

Flea Beetle—(Small jumping beetle which eats small holes in leaves).

Remedy: Same as with potato.

WATERMELON

Anthraxnose—(Brown spots on leaves; small sunken spots on fruit).

Remedy: Spray with Bordeaux mixture when melons are half grown. Repeat 10

days later and again if necessary.

Insects—This plant is subject to the same insects as cucumber and should be treated the same way.

Herbs

ANISE—Used for cordials, garnishing and flavoring. Pkt., 5c; oz., 15c.

BALM—Leaves used for making pleasant beverages. Pkt., 5c; oz., 35c.

BASIL—Sweet, the leaves are used in flavoring soups. Pkt., 5c; oz., 15c.

CARAWAY—Grown for seeds; used for flavoring. Pkt., 5c; oz., 20c.

CATNIP OR CATMINT—Leaves and young shoots for seasoning. Pkt., 5c; oz., 50c.

CORIANDER—Seeds used in the manufacture of liquors, in confectionery and culinary preparations. Pkt., 5c; oz., 15c; ¼ lb., 50c.

DILL—Seeds have an aromatic odor and pungent taste. Pkt., 5c; oz., 15c; ¼ lb., 40c.

FENNEL—Sweet; ornamental; when boiled used in fish sauce. Pkt., 5c; oz., 15c.

HOREHOUND—For seasoning and cough remedy. Pkt., 5c; oz., 25c.

LAVENDER—an aromatic, medicinal herb. Pkt., 5c; oz., 25c.

MARJORAM—Sweet; leaves and shoots used for seasoning. Pkt., 5c; oz., 25c.

SAGE—One of the most extensively used herbs for seasoning; hardy perennial about fifteen to eighteen inches high. Plant very branching; flowers usually blue, sometimes pink or white; leaves grayish green, oval, wrinkled. Pkt., 5c; oz., 20c; ¼ lb., 60c.

SUMMER SAVORY—Used for flavoring soups. Pkt., 5c; oz., 20c.

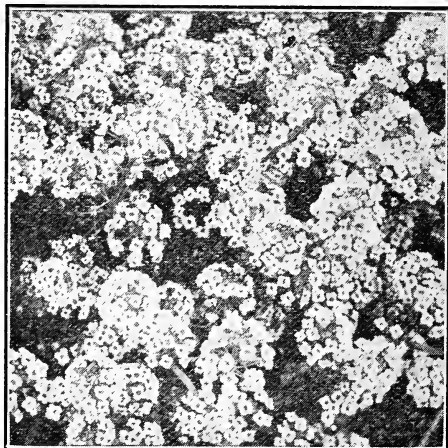
THYME—Leaves and young shoots used for seasoning; a tea is made from leaves, a remedy for headache. Pkt., 5c; oz., 40c.

Flower Seeds

ACROCLINIUM—(Everlasting): A very pretty, half hardy annual producing white and rose colored, double daisy-like flowers, about one-half inches in diameter. Each flower-head is borne singly on a very long stem; leaves small, narrow, alternate. Grows about 15 inches high. Mixed: Pkt., 5c.

AGERATUM—Floss Flower (A)—One of the most useful and profuse-blooming plants known. A beautiful, hardy annual of neat bushy habit. The attractive feathery flowers borne in dense clusters are very useful for bouquets. Very desirable for outdoor bedding and borders, being covered with bloom nearly all summer. Mixed. Pkt., 5c.

MEXICANUM COERULEUM—Blue. Pkt., 10c
MEXICANUM GRANDIFLORUM—White. Pkt., 10c.



Sweet Alyssum

ALYSSUM SWEET LITTLE GEM (A)—The plants are very dwarf and spreading; they grow only three to four inches high, and each plant completely covers a circular space 12 to 20 inches in diameter. They soon become one mass of white, remaining in full bloom from spring to fall. Pkt., 5c; oz., 50c.

AMARANTHUS (A)—Brilliant-foliated annuals, growing from three to five feet high, bearing curious racemes of flowers. Useful in borders of tall plants or for the center of large beds. They thrive best in a hot, sunny location, not too rich soil, and given sufficient room to develop their full beauty.

Mixed: Pkt., 5c.

CAUDATUS (Love Lies Bleeding)—Blood red; drooping. Pkt., 5c.

ANEMONE (Coronaria) (P) (Wind Flower)—Among the earliest of spring flowers. They are about two inches across, with blue stamens, resemble the single poppy in shape and come in several shades of color. The foliage is deeply cut. A most valuable class of hardy plants suitable for edging, massing or single specimens. They grow rapidly two to three feet and are profuse in bloom, gaining strength and beauty each year. Single, Mixed Pkt., 10c.

ARABIS OR ROCK CRESS (P)—The earliest, prettiest spring flower. The spreading tufts are covered with a sheet of pure white flowers as soon as the snow disappears. Unequaled for rookeries or edgings; withstands the drought and is always neat. Pkt., 10c.

ASTERS

There is no more beautiful flower than the Aster, and there is none with a greater diversity of colors and sizes. These have been very much improved, so that today the largest and most beautiful resembles a fine Chrysanthemum more than it does an old-fashioned Aster.

Our stock has been selected with the greatest care, so that we are able to offer varieties that will undoubtedly please and delight anyone giving them reasonable care.

COMET, GIANT BRANCHING (A)—Are thrifty growers, 15 inches high, bearing immense long stemmed flowers, composed of long, wavy petals, like Japanese Chrysanthemums. Crimson, White, Pink, Lavender, Royal Purple and Mixed. Pkt., 10c.



Giant Comet.

FLOWER SEEDS—Continued

"CREGO GIANT" (A)—The "Giant" Crego is distinct in every way, and its magnificent flowers, often growing to 6 inches in diameter, are fully equal to Chrysanthemums. They have rare beauty of form and brilliant coloring, are very vigorous, and free flowering; blooms are borne on long stems. White, Pink, Purple, Crimson, Lavender and mixed. Pkt., 10c.

IMPROVED OSTRICH FEATHER (A)—The finest type of the Giant Comet, or Ostrich Feather type of Asters. Much larger than the Giant Comet, the petals longer and more curled and twisted, and produced in greater abundance. Borne on long stems, which makes them cut flowers par excellence. White, Dark Blue, Rose Pink, Rose, Royal Purple and mixed. Pkt., 10c.

ASTERMUM—(What Is It?)—A strain of Comet Asters which on account of their immense size and chrysanthemum-like appearance have appropriately been named Astermums. They were first exhibited at the convention of American Florists in 1912 and attracted great attention. The plants grow about two feet high with long, strong stems. Most of the flowers are five inches across. Mixed Pkt., 15c.



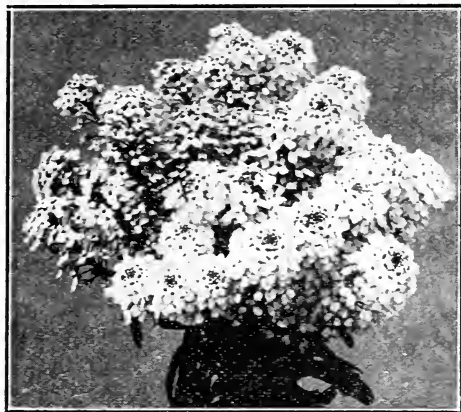
Improved Ostrich Feather.

BACHELOR'S BUTTON, OR CENTAUREA CYANUS (A)—A hardy annual, easily cultivated. Has recently been greatly improved, and now produces handsome flowers of a great variety of rich colors. Borne on tall, branching stems, with but little foliage. Striking and handsome. Mixed Pkt., 5c; oz., 25c.

BALSAM OR LADY'S SLIPPER (A)—An old and favorite garden flower, producing its gorgeous masses of beautiful brilliant-colored double flowers in the greatest profusion; of easy culture; succeeds in a good rich soil; tender annuals; 2 feet. Start the seed indoors in April or sow out of doors in May. To grow fine specimens they should not be closer than 18 inches apart. Double Camellia-Flowered—Mixed. The largest double variety. Pkt., 10c.

BEGONIAS (P)—Begonias are among the most beautiful of flowering plants, especially adapted to pot culture. Dwarf. Mixed, Pkt., 25c.

CALENDULA (POT MARIGOLD) (A)—Very hardy annual, one foot high, blooming freely practically the whole year round. Is of the easiest culture and is desirable for rather inferior soils, where less sturdy flowers do not thrive. A medicinal extract resembling arnica is made from the flowers. Mixed, Pkt., 5c; oz., 25c.



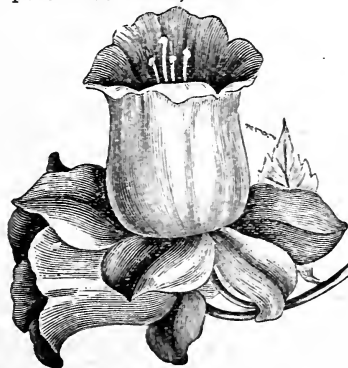
Candytuft.

CALLIOPSIS (A)—A quick growing annual. The flowers are placed on graceful wavy stems and in color run through all the shades of red and yellow; foliage dainty; useful combined with other flowers. Tall double mixed. Mixed, Pkt., 5c.

CANDYTUFT (A) (Iberis)—Showy, branching plants twelve to fifteen inches high and bearing in profusion terminal clusters of beautiful single cruciform flowers in a wide range of colors. Considered indispensable for cutting and very effective in beds, masses or rockeries.

Empress (A), White. Pkt., 10c; oz., 50c; Mixed (A), Pkt., 5c; oz., 40c.

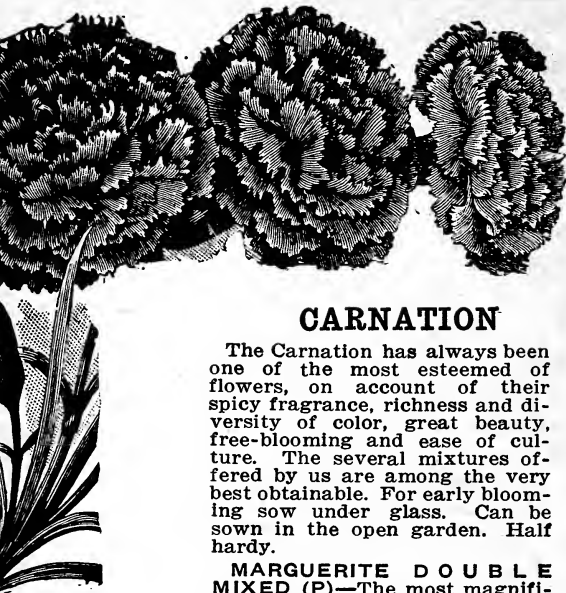
CANNA FRENCH—Crozy's dwarf, mixed—(P)—Ornamental tropical-looking plants of easy culture; large and beautiful flowers. Hardy perennial. Pkt., 10c.



Canterbury Bells

CANTERBURY BELLS (Campanula Calycanthemata) (Cup and Saucer) (B)—Produces beautiful single flowers three inches in length with saucers three to four inches in diameter. The plants form pyramids of bloom bearing from 100 to 200 of these exquisite blossoms for weeks during the early summer. A hardy biennial 2½ feet high, flowering the second season from seed. White, Blue, Pink. Pkt., 10c; mixed, all colors, Pkt., 5c.

FLOWER SEEDS—Continued

**CARNATION**

The Carnation has always been one of the most esteemed of flowers, on account of their spicy fragrance, richness and diversity of color, great beauty, free-blooming and ease of culture. The several mixtures offered by us are among the very best obtainable. For early blooming sow under glass. Can be sown in the open garden. Half hardy.

MARGUERITE DOUBLE MIXED (P)—The most magnificent of all the Pink family and

general favorite for their delicious fragrance and richness of color. Pkt., 10c;

GIANT MALMAISON (P)—An exceedingly fine mixture. Pkt., 25c.

EARLIEST FRENCH MIXED (P)—Produces double, sweet-scented flowers, in a great variety of colors and in great profusion. Pkt., 15c.

CENTAUREAS

Centaureas embrace some foliage plants but are more generally known for their hardy flowering annuals which include some of our most graceful and showy garden flowers that have long been favorites for cutting. The tall slender straight or slightly branching plants with narrow leaves thrive well in common garden soil. They produce bright colored single and double heads of flowers on long graceful stems and some sorts are fragrant.

IMPERIALIS ROYAL SWEET SULTAN (A)—This beautiful class is undoubtedly the finest of all Sweet Sultans for cut flower purposes. The beautiful sweet-scented, artistic-shaped flowers are borne on long, strong stems, and when cut will stand for several days in good condition. It is best, in this latitude, to sow very early in the spring, so that they may perfect their flowers before very hot weather arrives. Mixed Pkt., 10c; Blue, Pkt., 10c.

CANDIDISSIMA OR WHITE LEAVED DUSTY MILLER (A)—Silvery white; leaves broadly cut. Fine for bedding, vases, hanging baskets and pots; also extensively used for margins. As an edging to a bed of dark-leaved Cannas or Scarlet Sage these are particularly effective. Sow the seed early indoors, and transplant in May. Pkt., 10c.

CELOSIA (COXCOMB) (A)—Free blooming annuals, growing best in light soil not too rich. They make splendid border plants and are attractive for pots. Finest dwarf, mixed, pkt., 10c.

CERASTIUM, TOMENTOSUM (Snow in Summer) (P)—A very pretty dwarf, white-leaved edging plant, bearing small white flowers; hardy. Pkt., 15c.

CHRYSANTHEMUMS

These outdoor "summer Chrysanthemums" are showy and effective for bedding or borders in the garden and desirable for cut flowers. Plants become more bushy and shapely if pinched back in early growth and the practice of disbudding will result in much larger flowers. These annuals are not the winter flowering sorts sold by florists and which are propagated only by division of roots. Double Mixed, Pkt., 10c.

CLARKIA (A)—Handsome, free flowering annuals of easy cultivation. Produce a fine effect massed in beds. Flowers are very bright and attractive. Double mixed, Pkt., 5c.

COLEUS (P)—Magnificent ornamental foliage plants for house or garden culture. The leaves are of many shapes, and the shades and colors are of remarkable beauty. Finest Hybrids Mixed, extra choice, pkt., 25c.

COLUMBINE OR AQUILEGA (P)—A delightful hardy perennial, growing about two feet high, and splendid for permanent beds and borders. Thrives in partial shade and under the spray of a fountain or other moist location. Bears exquisite blossoms of clear blue, white, rose, purple and striped. Single mixed, pkt., 5c. Double mixed, pkt., 10c.

COREOPSIS (LANCELATA) (P)—Blooms the first year; flower rich yellow, single; very fine for cutting. Pkt., 10c.



Cosmos

COSMOS—Very effective for autumn flowering in broad masses or backgrounds. A hardy and rapid grower, forming bush-like plants with feathery green foliage, four feet high, covered with large flowers somewhat resembling the single dahlia. They are gracefully poised on long stems and very useful for decorative purposes. Extra early, mixed, pkt., 5c.

DAHLIA (P)—But few people know Dahlies can be raised from seed and will bloom the first year. The seeds germinate as easily and certainly as Zinnias, and from the very first development are strong and sturdy little plants. Plant them in a shallow box or pan early in

FLOWER SEEDS—Continued

March or April, transplant them carefully as their growth demands. When all danger from frost is over plant them in the bed or border in the garden, and from then on they will prove no more trouble than if the tubers had been used instead of seed. Double Mixed, pkt., 10c; Single Mixed, pkt., 10c. Double Cactus Mixed, pkt., 15c.

DAISIES

BELLIS, DOUBLE (P)—Beautiful double flowers that appear in early spring if plants are slightly protected over winter. Blossoms also early from spring-sown seed, as plants bloom when but two or three inches high. Mixed, pkt., 15c;



Shasta Daisy

SHASTA (P)—A most remarkable new flower, originated by Luther Burbank, of California; bears flowers of the snowiest white, with yellow centers; blooms the first season and should be sown in boxes early and transplanted. Pkt., 15c,

DIAMOND FLOWER (Inoposidium) (A)—A charming little thing for every window garden, growing only 2 or 3 inches high. The seed may be sown in the pots of other plants, resulting in a mass of minute green leaves and starry flowers which shine like diamonds. Colors are White and Violet Blue mixed. Pkt., 10c.

DIANTHUS OR PINKS (B)—A magnificent genus, embracing some of the most popular flowers in cultivation, producing a great variety of brilliant colors and profusion of bloom. They grow about a foot high and can be used in beds or borders of solid or mixed colors. The double flowering sorts are almost as fine as Carnations for cutting. Should have a sunny location. Single, Pkt., 5c. Double Mixed, Pkt., 10c.

DIGITALIS (Foxglove) (P)—Handsome, ornamental, hardy plants of stately growth. The seed, though small, germinates readily and the plants succeed well even in poor soil if given a half shady location. The spikes are often 3 to 5 feet long and thickly strung with scores of thimble-shaped flowers. Mixed colors, pkt., 5c.

EVERLASTING (Helichrysum) (A)—Sometimes called the Straw Flower. Large, full, double daisy-like flower heads with prominent centers and stiff overlapping scales, produced in various shades of bright yellow and scarlet on stems of good length. Desirable as dried specimens and for use in making winter bouquets. For this purpose the flowers should be gathered when on the point of expanding. Sow early in spring; thin to one foot apart each way. Hardy; two to two and one-half feet high. Monstrosum, fl. pl., finest mixed. Largest double flowers, pkt., 5c.

FEVERFEW (Matricaria Eximia) (A)—The plants are pyramidal in growth, eight inches high, with dark-green lacinated leaves. The plant is surmounted by numerous tall, freely branching flower-stems, which attain a height of eighteen inches, and are literally covered with small, double, pure white flowers. Valuable to grow for cut-flowers. Pkt., 5c.

FORGET-ME-NOT (MYOSOTIS) (P)—A modest little flower. A pretty trailer with blue flowers. Pkt., 10c.

FOUR O'CLOCK (MIRABILIS) (A)—Is also called Marvel of Peru. A handsome, free-flowering, sweet-scented plant. They open their blossoms about four o'clock in the afternoon, hence their name. Hardy annuals. Choice mixed, pkt., 5c.

GAILLARDIA (BLANKET-FLOWER) (A)—Splendid showy annuals, remarkable for the profusion, size and brilliancy of their flowers, continuing in bloom from early summer till November; excellent for beds, borders, or for cutting; should be sown where they are to bloom; 1½ feet. Fine Mixed Double, pkt., 5c. Perennial, Single, Mixed, pkt., 10c.

GERANIUM (P)—Comparatively few are aware that Geraniums may be grown easily from seed and flower the first season if sown early. This is the best way to secure Geraniums, as they will frequently reward the cultivator with charming new varieties. In fact, propagation by seed is the only way to obtain new varieties. Zonale Mixed, pkt., 15c.

GODETIA (A)—An attractive, hardy annual deserving more extensive cultivation. The plants bloom profusely and bear showy flowers of rich and varied colors, one and one-half inches. Mixed, pkt., 5c.

Gypsophila OR BABY'S BREATH (A)—A pretty, free-flowering plant. Fine for bouquets. Pkt., 5c. Perennial. Pkt., 10c.

HELIOTROPE (P)—A half-hardy perennial, growing four to eight feet high. Small flowers, borne in graceful clusters and very fragrant. Blooms the first season from seed if sown early. Forms a large plant and requires a roomy situation. Can also be grown against a wall and made to assume the character of a climber. Finest mixed, pkt., 10c.

HOLLYHOCKS (P) Charter's Superb Double. Finest Mixed.—These fine, old-fashioned perennials are most striking when planted in groups of long rows; their variety of color is wonderful. When plants are once obtained they last for several seasons. Double mixed, pkt., 10c.



Heliotrope

FLOWER SEEDS—Continued

ICE PLANT—Tender Annual Trailer—A pretty little trailer for baskets or massing; 6 inches high. Leaves covered with crystalline drops. Flowers white or pink. Valued for its remarkable foliage. Pkt., 5c.

JOB'S TEARS—*Colx Lachryma*—An annual ornamental grass, with broad, corn-like leaves and hard shining seeds of peculiar appearance, giving the plant its name. Two feet. Pkt., 5c.

KOCHIA TRICHOPHYLLA (Mexican Fire Bush, or Summer Cypress) (A)—A quick growing foliage or hedge plant, very symmetrical and attractive in summer and fall. The foliage is as fine as moss and of clean, bright, green color. Early in the fall innumerable little flowers appear and the bush takes on a deep red tinge. Sow outdoors early in spring, covering one-fourth inch deep; about two and one-half feet high. Pkt., 5c.

LARKSPUR (P) (*Delphinium*)—The Larkspur with its long clustered spikes of beautiful irregular flowers, often with long spurs, is especially valuable for its shades of blue. The annual forms are very desirable for bedding and the perennials are strikingly effective as a background for borders and for planting among shrubbery. Seed of annual varieties may be sown outdoors early in spring. For earlier blooming start very early indoors or sow in fall. Thin one to one and one-half feet apart. The perennial sorts are sown in fall or early spring.

ANNUALS—Double Dwarf Rocket, mixed, pkt. 5c. Double Tall Rocket, mixed, 5c. Perennial, Large Flowering, Dark Blue, Pkt., 10c.

LAVENDER (*Lavandula Vera*) (P)—Well known, sweet-scented, hardy perennials, should be extensively grown in the mixed border; 3 feet. Pkt., 5c.

LINUM (Scarlet Flax) (A)—One of the most effective and showy bedding plants, of long duration, having fine foliage and delicate stems, with brilliant scarlet-crimson flowers; hardy annual; one foot. Pkt., 5c.

LOBELIA (A)—A very valuable and beautiful dwarf-growing plant, delicate drooping habit and profusion of charming little blue and white flowers.

Dwarf Single, mixed, pkt., 10c. Single Tall Blue Specimens, pkt., 10c. Single Dwarf Blue, pkt., 15c.

MARIGOLD

Tagetes (A)—The African and French Marigolds are great favorites; free-flowering, hardy, of easy culture. The African varieties grow two to three feet tall, bear large yellow or orange-colored flowers, and are adapted for large beds or mixed borders. The French varieties are dwarfer in growth, with beautiful striped flowers three to four inches in diameter, and are better suited for bedding and pot culture. They succeed best in light soil with full exposure to the sun. Either variety is splendid for cut flowers.

Tall Double African, about two feet high with flowers three to four inches in diameter, in shades of yellow and orange. Mixed, pkt., 10c.

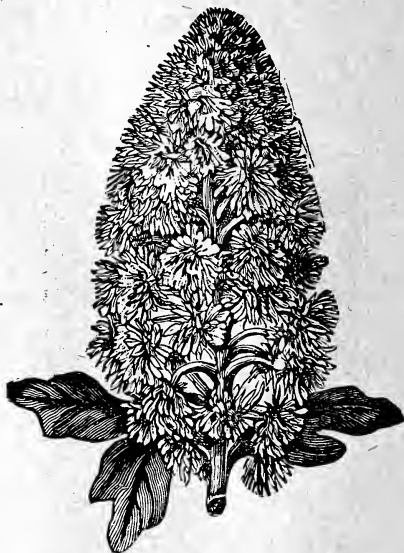
Tall Double French, one and one-half feet high with large double flowers. Mixed, pkt., 10c.

Dwarf Double African, about one and one-half feet high; large flowers; desirable for shrubbery or mixed border. Mixed, pkt., 10c.

Dwarf Double French, one foot high with large flowers. Mixed, pkt., 10c.

Orange French Dwarf, very double; rich orange; profuse bloomer; very desirable. Pkt., 10c.

MARGUERITE THE GOLDEN (*Dimorphothea Aurantiaca* (A)—A rare and extremely showy annual from South Africa which has become a great favorite on account of its very easy culture and beautifully colored flowers. Its Marguerite-like blossoms, produced in great profusion, are 2½ to 3½ inches in diameter. These are a unique glossy rich orange gold, which brilliant coloring is rendered more conspicuous by the dark disk surrounding the black zone. Pkt., 10c.



Mignonette

A well-known hardy annual producing dense spikes of exceeding fragrant flowers and much esteemed for this delightful fragrance. If sown in intervals it will bloom until frost.

Allan's Defiance—Spikes grow to a remarkable size and delicious fragrance. The individual florets are of immense size, forming a graceful as well as compact spike. Of extraordinary keeping qualities, retaining their grace and fragrance until every bud opens. Mixed, pkt., 5c.

GOLDEN MACHET—A compact growing variety with medium long thick spikes of yellow flowers. Pkt., 5c.

MIMOSA PUDICA (A) (*Sensitive Plant*)—A curious plant with globular heads of small pink flowers, chiefly valued because of the extreme irritability of its leaves which close and droop at the slightest touch, also in cloudy, damp weather and at night. Start in hotbed in pots, and transplant to a warm situation six inches apart. Tender annual; height one and one-half feet. Pkt., 5c.

MOSCHATUS (Musk Plant) (P)—Small yellow flowers, fragrant foliage; leaves musk scented; fine for hanging baskets. Pkt., 5c.

NASTURTIUM

For ease of culture, duration of bloom, brilliancy of coloring and general excellence nothing excels Nasturtiums. All they need is a moderately good soil in a well-drained, sunny position, and from within a few weeks from the time they are sown until hard frost comes there is an endless profusion of their gorgeous blossoms. No annual will produce such a lavish profusion of flowers for so long a time, with the same small outlay of time and labor. The maximum of bloom is produced in light or sandy soils and seldom diminishes through the hot weather.

FLOWER SEEDS—Continued

TALL OR CLIMBING—(Variegated Leaved) (A)—Specially adapted for covering verandas, trellises, trees, stumps, etc. Mixed, pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; lb., \$1.50.

TOM THUMB OR DWARF—(Variegated Leaved) (A)—When planted in beds or masses the brilliant effect of these splendid flowers is scarcely surpassed by any of our finest bedding plants. Mixed, pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; lb., \$1.50.

NEMOPHILA — BABY EYES — LOVE-IN-THE-GROVE (A)—A charming little annual plant, thriving especially well in moist, shady places, but quite at home in the open garden. The pretty, bell-shaped flowers in shades of blue, and variously marked, are freely produced all summer. Plants eight inches high; of neat, bushy habit. Pkt., 5c.

NICOTIANA—AFFINIS (Tuberosc-Flowered Tobacco) (A)—Delightfully sweet-scented, pure white tubular flowers, blooming continually; annual, two to three feet high...Pkt., 5c.

NIGELIA—LOVE IN A MIST OR DEVIL IN THE BUSH—DAMASCENA (A)—A compact, free-flowering plant with finely cut foliage, curious-looking flowers and seed pods; of easy culture, growing in any garden soil; hardy annual, blue and white mixed. Height one foot. Pkt., 5c.

PANSIES

PANSY (VIOLA ARICOLOR) (P)—A half-hardy perennial, growing four to six inches high and probably the best known and among the most popular flowers in cultivation. It thrives best in a moist, shady location, and in rich, loamy soil. Seed should be sown in the autumn for early spring blossoms, or can be sown early in the year for good flowers later in the spring.

FAUST—King of the Blacks—Almost coal black. The darkest Pansy grown. Pkt., 15c;

FINEST MIXED—Fine assortment of colors. Pkt., 10c.



Mastadon

MASTODON—These have been carefully selected and bred up to their present surpassing excellence, and for giant size, substance, form and coloring we have never seen Pansies to compare with them. Named varieties and special strains are grown separately and the seed collected by hand and carefully blended into what we believe to be the finest mixture ever offered. Pkt., 25c.

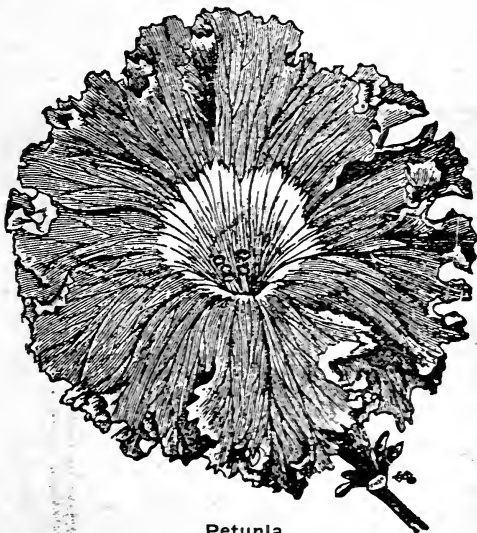
TRIMARDEAU CANDIDISSIMA—Snow white. Pkt., 20c.

TRIMARDEAU GIANT, MIXED—A splendid mixture of various shapes and markings. The blossoms are perfectly round and are blotched at the base. Pkt., 20c.

PENTSTEMON (P)—Handsome, half hardy, herbaceous perennials about two feet high and much in favor for bedding out. Flowers bell-shaped or tubular, an inch and a half long, borne in racemes or spikes, white and various shades of rose and purplish red striped with white. Mixed, pkt., 10c.

PETUNIA

PETUNIA (A)—Is without a peer among annuals for effective summer bedding or indoor culture. It is of easy culture, early to bloom and continues throughout the summer until the first killing frost. No other flower produces a greater diversity of color, retaining its freshness for so long a period. The doubles may be perpetuated, if desired, by taking cuttings late in the summer, for winter house blooming plants. Provide good soil and a sunny location.



Petunia.

Single Mixed, pkt., 5c. Single Fancy Mixed, pkt., 10c.

DOUBLE FRINGED—Large, exceedingly double flowers of many bright colors. Very desirable. Pkt., 30c.

Queen Incubators are admitted first place amongst Incubators. We have received a straight car.

FLOWER SEEDS—Continued

PHLOX



PHLOX DRUMMONDII (A)—Of all summer-flowering annuals, the varieties of Phlox Drummondii are unquestionably one of the most brilliant and satisfactory. Seed may be sown in the open ground any time after danger from frost is past, and in a few weeks the beds or borders are aglow with their brilliant coloring and remain so until cut down by frost. For early flowering they should be started indoors or in a hotbed. Grandiflora Mixed, pkt., 10c; Perennial Mixed, pkt., 15c.



POPPIES

Probably no class of plants enjoys greater popularity and is more widely grown than the annual poppies; this is especially true of the single varieties. They are easily grown, and should be sown in beds or wild patches, in early spring, where they will grow high above the grasses on tall, graceful stems.

CALIFORNIA (Eschscholtzia) (A)—The state flower of California; an annual of rich, rare tints of yellow and orange. About a foot in height, beautiful foliage and large poppy-like flowers. Pkt., 5c.

ICELAND (P)—A graceful, delicate variety, with dark red single flowers, the petals resembling crumpled tissue paper. The plant is low-growing, but the stems are long and slender. Mixed, pkt., 10c.

ORIENTAL (P)—One of the showiest of the perennials, with enormous flowers. The leaf is long and deeply cut and clothed with white, bristly hair. Beautiful among shrubs, roses and other perennials. Mixed pkt., 10c.

SHIRLEY IMPROVED (A)—The most beautiful type of poppies, having soft, hairy foliage, and a variety of single blossoms in white, pink, lavender, purple, red and scarlet. Free blooming and fine for bedding or tall border. Pkt., 10c.

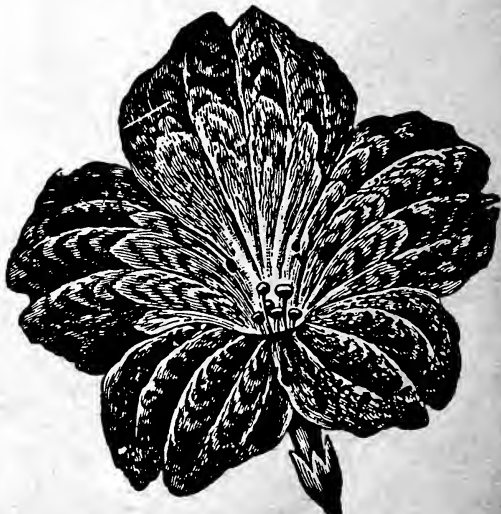
Single and Double, Mixed, Pkt., 5c.

PORTULACA OR ROSE MOSS (A)—Brilliant, dwarf annuals, only six inches high, luxuriating in warm situations and blooming profusely from early summer to autumn. For low beds and masses of color, from spring until frost, they are indispensable; colors range through innumerable shades of red, yellow, pink, striped, white, etc.

Single Mixed, pkt., 5c. Double, Mixed pkt., 10c. Extra Double Mixed, large, flowering, pkt., 25c.

PRIMROSE—SINENSIS OR CHINESE (P)—The beautiful, large fringed flowers stand in pyramids arranged on short flower stems. Blossoms of every shade of color, from pure white to deep crimson, and even deep blue; especially fine for winter and spring flowers in the house; easily grown; free bloomers. The finest single mixed. Pkt., 25c.

RICINUS, OR CASTOR OIL BEAN (A)—Ornamental plants of steady growth and picturesque foliage with brilliant colored fruit, producing a sub-tropical effect; fine for lawns, massing or center plants for beds. Finest Mixed, pkt., 5c; oz., 25c.



Salpiglossis (Velvet Flower)

FLOWER SEEDS—Continued

SALPIGLOSSIS (A)—Emperor Strain—The quaint, funnel-shaped flowers somewhat resemble those of the Petunia; beautiful range of colors. Finest Mixed, pkt., 10c.

SALVIA (Flowering Sage)—Splendens—Sold also as "Splendens Bonfire." The large, brilliant scarlet flowers are in very striking contrast with the rich, dark green background of dense foliage. This variety is most generally used in parks and on extensive lawns, as it is more vigorous than the dwarf varieties. One of the most distinct and effective bedding plants. Two and one-half to three feet high. Pkt., 10c.

SCABIOSA, OR MOURNING BRIDE (A)—A free-flowering annual; colors, white, carmine, lilac, maroon, etc. Very effective for garden decoration and valuable for cutting. Dwarf or tall double mixed. Pkt., 5c.

SCHIZANTHUS (Butterfly Flower) (A)—Hardy, growing one and one-half to two feet high and covered with bright, showy, butterfly-like blossoms. Large flowering. Mixed pkt., 10c.

SNAPDRAGON, OR ANTIRRHIN—One of the most useful and showy plants. Of almost every shade and color as beautiful as Carnations. They have recently been much improved and are now really magnificent. Hardy perennial.

Finest, Mixed, pkt., 5c. White, pkt., 10c. Pink, pkt., 10c.

STOCK (Mathiola)—Sometimes called Gilliflower. Considered almost indispensable where a fine display of flowers is wanted and particularly valued for edgings, bedding and pot culture. The improved varieties of this favorite garden plant produce dense spikes of very fragrant and beautiful rosette-like double flowers in a wide range of attractive colors. They are suitable for cutting, being produced on stems of good length in pleasing contrast with the dark green foliage of the bushy plants.

The Stock is one of the most popular annuals; for brilliance and diversity of color, fragrance, profusion and duration of bloom it is unsurpassed.

LARGE FLOWERING DWARF, 10 WEEKS (A)—This is the leading class for bedding out or summer-blooming. Mixed, White, Rose, Dark Blue, pkt., 10c. Perennial Dwarf, pkt., 10c.

SUNFLOWER (Helianthus) (Double Dwarf) (A)—This pretty sunflower grows to be 3 feet tall and has late in summer bright golden yellow flowers on stiff stem; fine for cutting. This is a pretty and refined flower four inches across. Pkt., 5c; oz., 40c.

SWEET ROCKET (Hesperis) (P)—Old-fashioned garden plant, and among the most desirable of hardy flowers; also known as Dame's Rocket and Dame's Violet; grows from two to three feet high, and bears spikes of showy white, lilac and purple fragrant flowers. Excellent for naturalizing among shrubbery or for planting in a permanent border; mixed colors. Pkt., 5c.

SWEET WILLIAM (P)—A well-known, attractive, free-flowering, hardy perennial, producing a splendid effect in beds and borders with rich and varied flowers. Mixed, Double, pkt., 10c. Single, pkt., 10c.

THUNBERGIA (Black-Eyed Susan) (A)—One of the best trailing plants for veranda boxes, vases, etc. Neat, compact growth. The pretty flowers, an inch in diameter, are white, buff or yellow, with black eye. Finest, Mixed, pkt., 10c.

TRITOMA (Red Hot Poker) (P)—The sturdy plants average from two to five feet in height. The flower heads, borne on stout stems two to three feet long, are from six to nine inches in length, the colors including lemon to golden yellow, orange, orange-scarlet, and crimson. Plants in full bloom are exceedingly noble and striking in appearance. Where bright and bold effects either in the border or upon the lawn are desired nothing can exceed the beauty of this new early-flowering ever-blooming "Poker-Lily." Pkt., 10c.



Verbena

VERBENA (A)—Very few annuals will make such a gorgeous display during the summer months or furnish more flowers for cutting than the Verbena. Start seed in the house or under glass early in the spring and transplant after three or four inches of growth. They flower in July and continue strong and healthy until destroyed by frost. Mammoth Extra Choice, Mixed, pkt., 10c.

VINCA (Pæriwinkle) (P)—These very attractive bushy plants with glossy green foliage produce in abundance handsome round or salver shaped single flowers, suitable either for culture in pots or boxes or for summer bedding and borders. If sown early under glass and transplanted in a warm, sheltered situation will bloom in summer and autumn and may be potted for the house before frost. The plants require no trimming, are in continuous bloom from setting out until frost and are entirely free from the attacks of insects. These desirable features account for the increasing demand for Vincas in parks and private grounds for summer bedding and borders. Tender perennial, blooming the first season, about fifteen inches high. Mixed, pkt., 10c.

WALL FLOWER (P)—Produces spikes of beautiful, exceedingly fragrant flowers. Half-hardy perennial. Mixed. Single, large flowering. Pkt., 5c; Mixed Double, pkt., 10c; tall branching double, mixed, pkt., 20c.

A full line of dairy supplies

FLOWER SEEDS—Continued



VIOLETS (P)—*Viola Odorata* is the well-known English Violet, a free-flowering, hardy perennial. Easily grown from seed, though somewhat slow in germinating; succeeds best in partially shaded moist places. Very early bloomer. Sweet scented, very pretty and very popular and a beautiful blue. Pkt., 10c.

GARDEN MIXTURE (A)—A garden is not complete without a bed of this mixture of flowering annuals. A package will sow a bed about two by ten feet, and if sown early in the spring will furnish continual bloom throughout the season. Pkt., 10c; oz., 40c; $\frac{1}{4}$ lb., \$1.00.



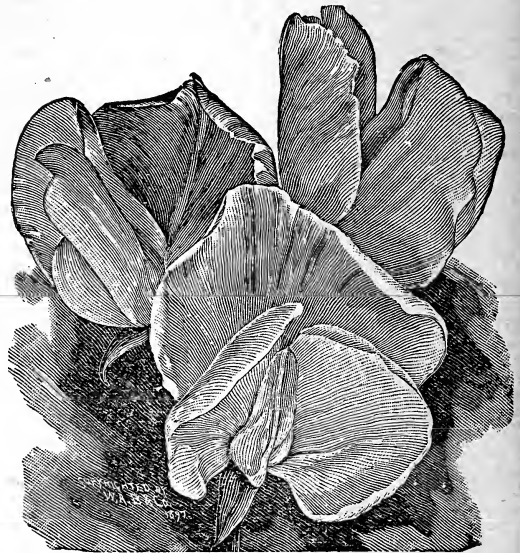
Zinnias

ZINNIAS (Elegans Grandiflora Double) (Youth and Old Age). (A)—Is one of the most brilliant and showy annuals, and has long been a general favorite. The seed can be sown early in the hotbed and transplanted, or sown later in the open ground. They come in flower early in the summer, and keep on blooming until first frost. Mixed, pkt., 10c.

SWEET PEAS

No garden is too small for a row of Sweet Peas, and no estate, however extensive or magnificent, should fail to include many varieties of this most popular flower. Hundreds of varieties have been offered for sale by seedsmen, but owing to recent marked improvements many sorts are decidedly inferior and have been dropped from our list.

CULTURE—Early in spring make a trench three to four inches deep in rich, mellow soil, so arranged that no water can stand in it and plant the seed in the bottom, covering at first only one inch deep. Sweet Peas, particularly the white seeded sorts, are often a little difficult to start. If the soil is too dry they will remain a long time without germinating; if it is too wet and cold they will not sprout at all. In soils at all heavy, or composed largely of clay, put about one inch of sand in the bottom of the trench and sow the seed in this, covering with more sand. Cover the row with a board to shed the rain and protect the soil from the hot sun but remove this as soon as the young plants appear. When the plants are two inches high, cultivate and as they grow gradually fill up the trench. When the plants are about five inches high it is desirable to furnish some support for the vines to run upon. The roots should not be allowed to become too dry. Water applied thoroughly once or twice a week, preferably early in the morning or in the evening, is usually better than light sprinkling more frequently. The blooms should be picked before they form pods or the plants will soon stop flowering.



Grandiflora Type

All varieties of Grandiflora Sweet Peas: Pkt., 5c; oz., 20c; 2 oz., 35c; $\frac{1}{4}$ lb., 50c; $\frac{1}{2}$ lb., 85c; lb., \$1.50, postpaid.

Blue

CAPTAIN OF THE BLUES—Standard light maroon. wings light purple.

LORD NELSON, OR "BRILLIANT BLUE"—A brilliant dark navy blue with tips of wings a lighter blue. Giant flowers, slightly hooded.

Lavender

COUNTESS OF RADNOR—Self-colored in a very distinct and beautiful shade of lavender.

LADY GRISEL HAMILTON—A large soft lavender, tinted mauve; similar to Countess of Radnor, but nearer blue; hooded form. One of the best.

Maroon

BLACK KNIGHT—Glossy deep maroon, one of the darkest; medium size, open form.

OTHELLO—A very dark maroon, practically self colored with almost black veining. Large size, hooded form, very attractive.

FLOWER SEEDS—Continued

Orange Pink

MISS WILLMOTT—A fine orange-pink, showing veins of deeper tint. Flowers semi-hooded, good size, on long stems; plant very vigorous.

Pink and Rose Shades

KATHERINE TRACY—Rose pink. Splendid large, open flower, good substance and color, a vigorous grower and free bloomer.

PRIMA DONNA—One of the very best of the hooded pink grandiflora varieties. The flowers are of good size, clear soft shade; self-colored. The vines are of vigorous growth, often with three or four flowers on a stem.

Purple

LADY SKELMERSDALE—A light purple with a tinge of rose. Free bloomer with long stems and large flowers.

Red

FIREFLY—An intense crimson scarlet, of large open and expanded form. One of the best bright reds yet offered and its fiery coloring makes it a most desirable bouquet variety.

KING EDWARD VII.—A lovely, intense crimson. A truly giant flowered variety. The finest crimson to date. Strong stems and growth.

Rose With White Wings

BLANCHE FERRY—Blossoms very early and continues to produce abundantly through a long season. The standard is medium sized, of open form, and bright rose-pink; wings large, rounded nearly white. The typical pink and white sweet pea.

Striped and Variegated

AMERICA—Bright red on a silvery white ground; showy.

DAINTY—The beautifully formed large flowers, upon first opening, appear to be white, but quickly change to "white with pink edge"—making a most charming contrast.

SENATOR—Purplish maroon, heavily striped on a white ground. Darkest striped variety.

White

BLANCHE BURPEE—A splendid pure white variety.

EMILY HENDERSON—A bold, well-formed clear white flower. Wings broad and well expanded. An early and wonderfully free and persistent bloomer.

DOROTHY ECKFORD—Pronounced by Sweet Pea experts to be the grandest pure white yet seen of the grandiflora type. Grows an enormous mass of blooms.

WHITE WONDER—This is truly named, as it comprises the best qualities of the different whites, being a clear, bright white, with long stems and large flowers and keeping well after being cut.

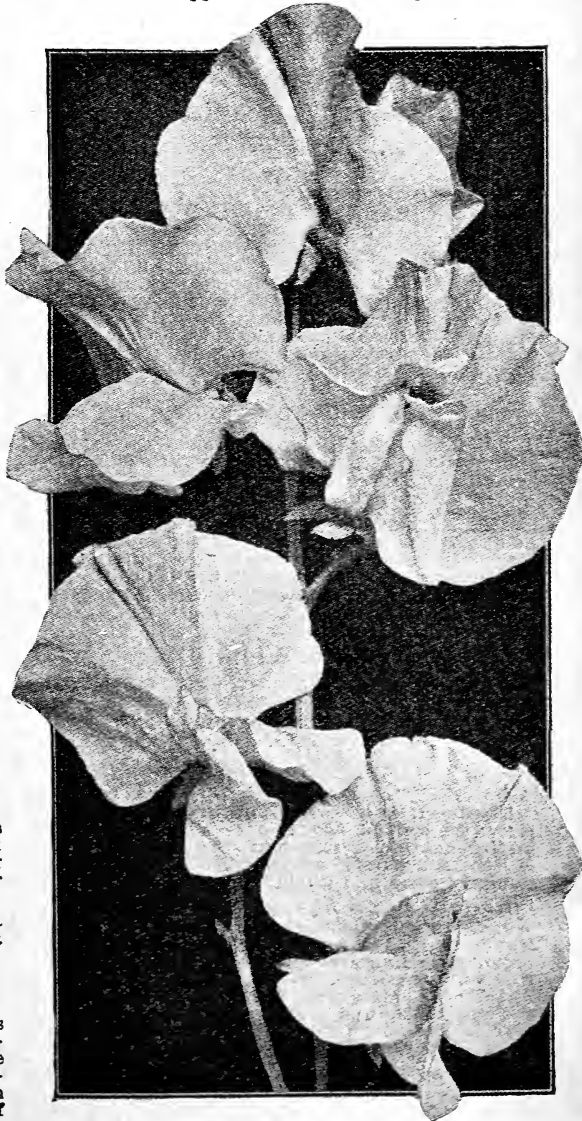
All varieties of the foregoing Grandiflora Sweet Peas: Pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; lb., \$1.50.

Mixed

CLOVER LEAF LARGE FLOWERING—This elegant mixture embraces the introductions, including the recent novelties of Mr. Eckford, the Sweet Pea specialist of England, who has accomplished more than any other individual in bringing the Sweet Pea to its present state of beauty, size and perfection. Pkt., 5c; oz., 15c; 2 oz., 25c; ¼ lb., 40c; ½ lb., 75c; lb., \$1.25.

Spencers

The last few years has seen a wonderful development in Sweet Pea culture. For many years previously the "Grandiflora" type had maintained an unchallenged leadership, and new types were very slow in making their appearance. About ten years ago, however, after several years of experimenting, a distinctly new type was developed in the gardens of Earl Spencer in England. The new flower was called "Countess Spencer," and from this magnificent sort has been developed that remarkable class of Giant Orchid-Flowered Spencer Sweet Peas known and admired throughout the horticultural world. The "Grandiflora" are somewhat better able to adapt themselves to adverse conditions and under such conditions do give greater satisfaction, but when properly grown the "Spencer" in size of blossoms, beauty of form, substance and color, the unusual number on a stem, and the long continuance of their season, easily maintain an unapproachable leadership.



White Spencer

FLOWER SEEDS—Continued

All varieties of Spencer Sweet Peas, unless otherwise quoted: Pkt., 10c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.15; ½ lb., \$2.00; lb., \$3.50.

Crimson and Scarlet

MARIE CORELLI—The wings are a pure rich rose-crimson while the standard shows a tint of cherry-red. The whole effect is that of a brilliant crimson—clear, distinct and most beautiful. The standard is large, round and wavy; the wings are full and inclined to remain boldly upright instead of drooping. The long strong stems usually bear four flowers each.

MAUDE HOLMES—A brilliant sunproof crimson of the largest size. Of true Spencer form, wavy and fluted. The perfect blooms are carried on extra long stems. A crimson of real merit.

QUEEN ALEXANDRA—One of the finest yet introduced. In color a rich bright scarlet; flowers of largest size.

Cream

DORIS USHER—Salmon-pink on cream ground. The flowers are of largest size, freely borne four on a stem. A splendid exhibition variety.

MRS. HUGH DICKINSON—One of the most chaste and charming varieties yet obtained. The coloring is a rich pinkish apricot on a cream ground, shading off rather lighter toward the center of the flower. The gigantic flowers are uniformly of the best Spencer type, and practically always borne in fours upon exceedingly long stems—and sometimes five flowers to a stem. The vines of most vigorous sturdy growth, begin blooming early and continue to flower in wonderful profusion.

Orange and Salmon

BARBARA—A superb salmon-colored self that makes a "telling" bunch either for exhibition or table decoration, but the flower requires to be slightly shaded.

HELEN LEWIS—The orange-rose wings roll and fold; the standard is reflexed, showing the distinctly fluted effect, and is of an intense rich crimson-orange. The blooms are truly of a gigantic size—the ruffled standard measuring two inches across.

Rose With White Wings

BLANCHE FERRY—Similar in color to the popular Blanche Ferry, but of true giant Spencer type. The standard is bright rose, the wings being pinkish or blush-white.

Pink

Dainty—It is a most beautiful pink-edged variety; the ground color is pure white with a very distinct margin of rose-pink. The general effect is light and dainty, as the white ground is particularly clear and glistening.

HERCULES—(Synonym, Kralissa.)—A self of truly giant proportions, undoubtedly the best of its class. A flower of great substance; the broad spreading and beautifully waved standard frequently measures two and one-half inches in diameter. This grand variety is a fitting companion in size and form to the superb gigantic Elfrida Pearson, from which it differs in being of a deeper, warmer shade.

MIRIAM BEAVER—A charming combination of bright apricot-pink on a primrose ground a little deeper at the margins and showing pure primrose at the base of the petals, of perfect Spencer form.

MRS. ROUTZAHN—Buff or apricot ground, flushed and suffused with delicate pink, deepening toward the edges. The flowers are of the largest size—thoroughly crimped and waved. The standard is broad and deep; the wavy wings are so large that they usually hide the keel. Decidedly the most beautiful "Apricot and Pink."

Yellow

DOBBIES CREAM—This is regarded as one of the best yellow Spencers. The standards are large and beautifully curved. A free grower and bloomer and produces three and fours on long stiff stems.

PRIMROSE—The waved standard measures nearly two inches across; the crinkled wings are an inch across by one and one-eighth inches deep. The color is a clear primrose throughout.

All varieties of the foregoing Spencer Sweet Peas: Pkt., 10c; oz., 35c; 2 oz., 60c; ¼ lb., \$1.15; ½ lb., \$2.00; lb., \$3.50.

Three Special Spencers

FIERY CROSS—Fiery Cross bears the distinction of being the world's most famous Sweet Pea. Fiery Cross is an appropriate name for this most unique variety. Fiery Cross has all the appearance of live fire and is an entirely new shade of Sweet Peas. The standard is a scorching fire-red or rich orange-scarlet, which scintillates and glitters in the bright sunlight with a glowing, fire-like sheen that radiates over the entire flower, including the rich, cherry-orange wings. Fiery Cross can be grown anywhere without danger of burning. The color defies description.

JEAN IRELAND—The large standard is circular, of a very bright rose-pink, with a clear creamy base. The wings, large and well expanded, are beautiful blush in color, overlaid with rose.

ROBERT SYDENHAM—Is a magnificent glowing orange self, quite brilliant in color as Stirling Stent, but without cerise or pink. The large flowers are usually produced four on a stem, well placed and beautifully waved. The vines bloom profusely, while the flowers require only slight shading to preserve their wonderfully deep orange color.

These three special Spencers: Pkt., 15c; 2 pkt., 25c; oz., 40c; 2 oz., 75c; ¼ lb., \$1.25; ½ lb., \$2.25; 1 lb., \$4.00.

Mixed

CLOVER LEAF SPENCER—In this mixture we have used only the choicest and best of the Waved Spencer and have taken every care to produce in the mixture a proper balance of colors. We are confident that in offering this truly incomparable blend we are giving our customers the opportunity of securing the cream of the latest and best efforts in Sweet Pea culture. Pkt., 10c; oz., 30c; 2 oz., 50c; ¼ lb., 80c; ½ lb., \$1.50; lb., \$2.50.

VINES FROM SEEDS

BALLOON VINE (LOVE-IN-A-PUFF) (A)—A rapid growing annual climber; succeeds best in light soil and warm situation; flowers white; seed vessels like miniature balloons. Pkt., 5c; oz., 25c.

BEANS—Scarlet Runners—A great favorite, not only as an ornamental climber but for the delicious edible beans which succeed the bright scarlet sprays of pea-shaped blossoms. Pkt., 5c; oz., 10c; ¼ lb., 20c; ½ lb., 30c; lb., 50c.

FLOWER SEEDS—Continued

BEAN HYACINTH (Australian Pea Vine), (Dolichos) (A)—This really beautiful climbing plant is of quick growth; foliage is handsome and the clustered spikes of beautiful purple and white flowers are borne in great profusion. The shining purple seed-pods are also very ornamental. Tender annual, growing six to eight feet. Seed should be sown where plants are desired, in as warm and dry a spot as possible. Mixed, pkt., 5c; oz., 20c.

CANARY BIRD VINE (P)—A beautiful climber; flowers a bright golden yellow, bearing a fanciful resemblance to birds with expanded wings. Pkt., 5c.

CYPRESS VINE OR IPOMOEA QUAMOCLIT (A)—A climber of rapid growth, having handsome fern-like foliage and a profusion of bright, attractive flowers. Mixed, pkt., 5c; oz., 25c.

COBAE SCANDENS (A)—One of the handsomest and most rapid growing of the annual climbers. It climbs thirty feet in a season. The flowers are bell shaped and of a purplish lilac color. Very prolific and perfectly hardy. The vine is always clean of insects. Mixed, pkt., 10c.

GOURD (Cucurbita) (A)—A very extensive genus of trailing annuals with curiously shaped yellow fruit, commonly known as Ornamental Gourds. The vines are of easy culture and make a rapid growth, so are much used for covering old fences, trellises, stumps, etc. The foliage is ornamental, and the markings of some of the fruit extraordinary. Do not plant the seed till danger of frost is over, and select light, rich soil and a sunny situation. Water freely. Ten to twenty feet high. Mixed, pkt., 5c; 2 oz., 25c.

JAPANESE KUDZU VINE (A)—The Kudzu Vine comes from Japan, the land so productive of curious and ornamental flowers. It is a beautiful climber, remarkable for its great vigor of growth and its handsome flowers. The blossoms are large and in panicles somewhat like the Wistaria, but larger in size and with better clusters. The color is a pleasing shade of purple. The foliage is luxuriant. The vine is extremely rapid and dense in growth, perfectly hardy, increasing in size and beauty year after year; fine for arbors, verandas, etc.: Pkt., 10c.

JAPANESE HOP (Humulus) (A)—Variegated Japanese Hop. A charming climber, attaining a growth of 20 to 25 feet in a few weeks. The leaves (6 to 7 inches across) are beautifully marked and variegated with white yellowish green and dark green. Not injured by insects or by heat, and the vine retains its beauty until frost. Hardy, the roots living over winter, though it is not a true perennial. Pkt., 10c.

MOON FLOWER, OR IPOMOEA, MEXICANA GRANDIFLORA (A)—Rapid growing climber, belonging to the Morning Glory family. The flowers are large, waxy white and very showy. Black seeded. White seeded. Pkt., 10c.

MORNING GLORIES (A) (Convolvulus major, Ipomoea purpurea)—A handsome showy climber of easy culture and suitable for covering arbors, windows, trellises, old stumps, etc., if support be given the vines. Hardy. Seed is usually sown outdoors early in spring in row where plants are to remain. Well pulverized soil should be used and the seed covered one-half inch deep; thin four to six inches apart. If very early blooming is desired, seed may be started indoors and transplanted. Give some support such as strings or cord to the vines as soon as they begin to run and they will often exceed ten feet in height before the season is over.

Morning Glory (A)—Tall, fine mixed, a great variety of colors of the popular old-fashioned sorts. Pkt., 5c; oz., 15c.

Giant Japanese (Imperials) (A)—The flowers of this variety are of largest size, often three inches or more across; some are brilliant red or rich blue, others are equally brilliant, with broad margins of clear white; some are striped or dotted with blue or red on white or lemon yellow ground, others are clouded with blue and red. The foliage in some plants comes plain green, in others it is mottled with white and shades of yellow or yellowish green. Seed black, larger than other varieties of Morning Glory. Pkt., 10c; oz., 25c.

NASTURTIUM, TALL OR CLIMBING (A)—A very well-known ornamental, profuse flowering plant, adapted for rock work. The seeds, if picked young, are an excellent substitute for capers. Mixed, pkt., 5c; oz., 20c; 2 oz., 30c; ¼ lb., 50c; ½ lb., 85c; lb., \$1.50.

SMILAX (BOSTON IVY) (P)—Charming tender, perennial climber for greenhouse or window gardens. The foliage and stems are of a pleasing light green; very graceful; excellent for decoration. Pkt., 10c;

WILD CUCUMBERS (A)—A well-known vine, common in many sections, and the quickest climber known for covering verandas, old trees and houses, trellises, etc., never suffering from the heat, but retaining its fresh, lively green color; never infested with insects and very profuse in bloom. Pkt., 5c; oz., 25c; 2 oz., 40c; ¼ lb., 70c; ½ lb., \$1.25; lb., \$2.00.

VINES FROM ROOTS

CINNAMON VINE—This climber is appropriately called Cinnamon Vine. Very hardy, the stem dying down every autumn, but growing again so rapidly as to cover completely any trellis or arbor early in the season. With its beautiful heart-shaped leaves and clusters of delicate white flowers, and most delicious cinnamon odor, is a most desirable climber. Each, 10c; 3 for 25c; ½ doz., 40c. Postpaid, doz., 75c.

CLEMATIS JACKMANNI—Of strong growth, hardy nature, rich, deep velvety-purple flowers, is the most satisfactory of its class. Blooms with astonishing profusion. Postpaid, 75c.

HONEYSUCKLE—Grows vigorously, with yellowish white, fragrant flowers. Postpaid, 75c.

HOPS—Are the most rapid growers of any vine coming from the roots each spring. Their rapid growth and large broad leaves cover a porch before the arrival of the hot days of the summer. Postpaid, each, 10c; doz., 75c; 50, \$3.00; 100, \$5.00.

MADERIA VINE—A beautiful rapid climber, bearing graceful racemes of fragrant white flowers; very pretty and useful. Each, 10c; 3 for 25c; ½ doz., 40c; doz., 75c.

VIRGINIA CREEPER—Has large, luxuriant foliage, which in autumn assumes the most gorgeous and magnificent color; one of the finest vines for covering trellises, or verandas. Postpaid, 75c.

Bulbs

SUMMER FLOWERING

There is nothing in floriculture that will give greater satisfaction or produce such grand results as this class of bulbs, which includes some of our showiest garden flowers. They are of the easiest culture. Planted in spring in good garden soil, they flower with great certainty during summer and fall. The hardy sorts may remain in the ground over winter, but tender sorts should be taken up after the foliage dries in the fall, and the bulbs stored away in a dry, cool place until planting time the next spring.

BULBS—Continued.

CANNAS

Cannas should be planted in good, rich garden soil, mixed with half of old rotten stable manure by the end of May, when danger from frost is past. Water sparingly for first two weeks after planting. When growing freely water liberally. They are quick growers and bloom continuously until frost. Inexpensive, these charming ornamental plants produce rich tropical effects that cannot be excelled, and they are equally valuable for the beauty of their bloom.

Orange Flowers, Green Foliage

Gaiety—Reddish orange, mottled with carmine and edged with yellow. The tongue is yellow and densely spotted with carmine. Each, 20c; ½ doz., \$1.00; doz., \$1.75.

PANAMA—The color and markings of this splendid Canna are unusual; the rich orange-red face of the petals is bordered with a broad edge of golden-yellow, the florets are large and produced very freely. Height, 3 feet. Each, 20c; ½ doz., \$1.00; doz., \$1.75.

Pink Flowers, Green Foliage

HUNGARIA—The ideal pink bedding Canna; flowers large, in good sized trusses, produced early, freely and continuously, in color not unlike that of the Paul Neyron Rose. It possesses a softness and refinement not found in any other. Height 3 to 3½ feet. Each, 20c; ½ doz., \$1.00; doz., \$1.75.

MRS. ALFRED F. CONARD—An entirely new note in Cannas was struck with the introduction in 1910 of this variety. Its exquisite salmon-pink flowers are of largest size, in erect and abundantly furnished heads, so freely produced as to keep a superb showing for months; rich green foliage. Height, 4 feet. Each, 25c; ½ doz., \$1.25; 1 doz., \$2.25.

ROSEA GIGANTES—A rich rose-pink flower of giant size and a prodigious bloomer. Color is soft rose to carmine-pink, while its great flower heads are a wondrous size. It has received the highest award accorded any Canna (The Award of Merit from the Horticultural Society of England. Height 4 feet. Each, 25c; ½ doz., \$1.25; 1 doz., \$2.25.

Red Flowers, Green Foliage

ALPHONSE BOUVIER—A deep cardinal, growing to a height of five or six feet, with splendid foliage; large flowers borne on good trusses. Height, 5 feet. Each, 15c; ½ doz., 85c; doz., \$1.50.

FANAL—An intense, fiery cinnabar-red that compels attention; foliage deep green with narrow border, flowers produced very freely throughout the season. Each, 15c; ½ doz., 85c; doz., \$1.50.

METEOR—A magnificent beeding variety of strong, robust habit, with green foliage and enormous trusses of large, bright blood-red flowers freely produced well above the foliage. Height, 5 feet. Each, 15c; ½ doz., 85c; doz., \$1.50.

Spotted Flowers, Green Foliage

FAVORITE—A rich deep golden-yellow, produced on tall stems high above the foliage. The red dots, which are not too pronounced add to the piquancy of the flower, without detracting from the golden mass effect. Each, 15c; ½ doz., 85c; 1 doz., \$1.50.

GEM—This is an entirely distinct and very pretty variety of the spotted type. The immense trusses of flowers are borne on upright, branching stems well above the foliage. In color it is a deep cream or straw-yellow dotted and spotted with pale carmine. A vigorous grower, free flowering, producing a most refined effect. Each, 15c; ½ doz., 85c; doz., \$1.50.

White Flowers, Green Foliage

EUREKA—A free bloomer and its great trusses of perfectly formed, creamy white flowers stand nicely above the dense green foliage on stiff, upright stems. Each, 20c; ½ doz., \$1.00; 1 doz., \$1.75.

MAROS—Very free flowering, creamy white; one of the best. Two for 25c; ½ doz., 70c; doz., \$1.25.

Yellow Flowers, Green Foliage

BUTTERCUP—Bright buttercup-yellow. Ea. 15c; ½ doz., 85c; doz., \$1.50.

Red Flowers, Bronze Foliage

KING HUMBERT—In this grand new Italian Canna we have a combination of the highest type of flower with the finest bronze foliage. Its flowers, which under ordinary cultivation will measure six inches in diameter, and which are produced in heavy trusses of gigantic size, are of a brilliant orange-scarlet, with bright red markings, while the foliage is broad and massive and of a rich coppery bronze with brownish-green markings. Bold and effective. Makes a gorgeous effect when planted in mass. Height, 5 feet. Each, 20c; ½ doz., \$1.00; 1 doz., \$1.75.

EGANDALE—A fine, bronze-leaved variety; cherry red flowers, borne well above the foliage; very handsome. Height, 4 feet. Price, each, 15c; ½ doz., 85c; doz., \$1.50.

Scarlet Flowers, Bronze Foliage

Remarkable—A distinct and effective variety on account of its beautiful bronze foliage and scarlet-carmine flowers which force attention. The tall, graceful habit and strong coloring make it a valuable addition. Each, 25c; ½ doz., \$1.25; doz., \$2.25.

WINTZER'S COLOSSAL—Five feet. Without doubt the largest-flowered Canna to date, as the average flowers more than cover a man's hat. The color is a strikingly vivid scarlet that retains its brilliancy. Each, 15c; ½ doz., 85c; doz., \$1.50.

Three Remarkable Varieties

FIREBIRD—This is by all means the very best red-flowered, green-leaved Canna today.

The flowers are borne in immense trusses, on tall stalks well above the leaves. They are of splendid form, round and shapely. The petals measure two and one-half inches and over across, and the color is a clear glistening scarlet without streaks, spots or blotches. Each, 30c; ½ doz., \$1.50; doz., \$2.75.

GOLDBIRD—The flowers of this variety are equal in size to those of Firebird, to which it is a good companion; in color a soft buttercup-yellow, produced in very large trusses; plant very vigorous. Height, 4 feet. Each, 25c; ½ doz., \$1.25; 1 doz., \$2.25.

LAFAYETTE—Resembles the famous "Meteor," but the flowers are a more intense scarlet. The heads of bloom are carried erect above the healthy green foliage, producing a brilliant effect. Each, 25c; ½ doz., \$1.25; doz., \$2.25.

One each of these three remarkable varieties of Cannas, 75c.

BULBS—Continued.

DAHLIAS

The Dahlia is one of the showiest of all autumn flowers. Commencing to flower in July, they are a perfect blaze of bloom until stopped by frost. Especially fine for cut flowers. They have been greatly improved and are growing in favor from year to year. The following selections have been made with the greatest care, and every one will be found to possess true merit, and with proper care and conditions will amply repay the care and attention that has been given them.

Cactus Dahlies



The Cactus forms of Dahlias are exceedingly beautiful, and are hard to excel. They have long twisted petals and embrace nearly all the colors and shades to be found in any of the other types. The petals being closely rolled outwardly, and the pointed ends standing apart, give a distinctly starlike form to the flowers; in some the long slender petals are charmingly curled. For large size, exquisite colors, elegance of form and profusion of bloom these following varieties represent the latest and best in Cactus Dahlias.

- All 20c Dahlias: $\frac{1}{2}$ doz., \$1.10; doz., \$2.00.
 All 25c Dahlias: $\frac{1}{2}$ doz., \$1.25; doz., \$2.25.
 All 35c Dahlias: $\frac{1}{2}$ doz., \$1.80; doz., \$3.25.
 All 40c Dahlias: $\frac{1}{2}$ doz., \$2.15; doz., \$4.00.

CACTUS

BIANCA—Large flowers of a lovely pink lavender color. Very free flowering. Long stalks. Each, 40c.

Orange

J. B. RIDING—Yellow base shading to deep orange. Large flower of fine form. Each, 20c.

Pink

DENISON—Pure rosy pink, six inches in diameter, sharp petals, long stems, light green. For large vase purposes. Each, 25c.

RUTH FORBES—The massive clear pink flowers composed of heavy petals are often accompanied by stems measuring three feet in length, extra stout, and excel any other variety for large vase purposes. Each, 25c.

ETENDARD DE LYON—The flowers are of a hybrid-Cactus type, distinct in shape from all others; the petals are broad, curled and wavy and form a flower fully six inches in diameter and four inches deep, a very large flower, yet without any stiffness or formality; its color is a rich carmine-rose with a brilliant suffusion difficult to describe. Each, 35c.

Red and Scarlet

GENERAL J. B. SETH—Rich, brilliant scarlet with orange scarlet shadings; perfect form. Each, 25c.

MRS. F. JEFFRIES—In formation the flower is irregular; its long petals are curved and twisted, giving the flower a shaggy appearance. Color, deep red. Each, 25c.

NELLIE RIDING—Deep crimson with pure white tips; large flowers; fine form; useful any way. Each, 25c.

LACE MAKER—Beautiful, deep crimson-tipped, white. The petals are serrated, like a stag's horn; quite distinct and free flowering. Each, 25c.

WHITE

CAYEUX—Pure ivory-white. Long, straight, narrow petals, evenly curved. Generous bloomer. Each, 25c.

PIERRE DE LYON—Petals cleft at the tip. Pure white flowers, large, full and borne on long stems. Each, 35c.

Yellow

GOLDLAND—A splendid primrose yellow; perfect form and very free flowering. Each, 25c.

One each of these twelve varieties of beautiful Cactus Dahlias, \$3.00.

DECORATIVE

Black

MRS. O. J. MILLS—A nearly black decorative with a tinted blotch or bright spot of claret crimson in the center of each petal. A grand bloomer, with a long stem and a large flower. Each, 25c.

Bronze

LUCERO—The greatest in stem and floriferousness of any decorative yet grown and is the flower for cutting as it has such long stems and is a grand flower. Its coloring is bronze buff with a carmine flush and a deeper tinted center and grows better as season advances in size and depth of shading. Each, 25c.

MINNEHAHA—Extra fine flat petaled, medium size; very free bloomer. Golden bronze. Each, 20c.

Pink

MANITOU—Immense size. The color is pleasing, being amber bronze with a distinct shading of pink. Not suitable for cutting as the flower is too large and the stems rather short. Each, 25c.

PAUL BONYON—Extra large, fine form, fringed petals, free bloomer, upright, strong stems. Gold and pink. Each, 35c.

SYLVIA—Deep pink tinting to flesh pink at center; large perfect form, on long stiff stems. One of the best for cutting or garden. Each 25c.

Red and Scarlet

GAJETY—A splendid variegated or fancy variety, in color a bright strawberry red. Each petal having a broad band of white through the center. Each, 25c.

BULBS—Continued.

LYNDHURST—Brightest vermillion; one of the best bright red for cutting. An early, free and continuous bloomer, with long straight stems. Each, 25c.

MINA BURGLE—It is one of the freest flowering decorative varieties; 30 large, perfect flowers on one plant at a time not being unusual; in color it is a rich, luminous, dark scarlet; these flowers are carried on long, stiff stems; splendid both for cutting and garden decoration. Each, 25c.

Violet

EVEQUE—An elegant bright purplish violet, standing erect; very fine for cutting and most effective for the garden. Each, 35c.

White

EVENTIDE—A splendid flower of perfect form and large size on long stiff stems, which, for all purposes, may be termed white, there being but the faintest flush of delicate rose on the edge of the flower, which seems to intensify its pureness. Each, 40c.

MILDRED BABCOCK—A large flower of very fine form. White, tips of petals suffused with pink. Each, 20c.

PRINCESS JULIANA—Pure white flowers, well formed and produced on long stems. Each, 40c.

Yellow

MELODY—Splendid regular form with full high center and reflexed outer petals; clear canary yellow tinting to creamy white at tips. Each, 20c.

MOONBEAM—Clear canary yellow. Each, 35c.

One each of these fifteen beautiful decorative Dahlias, \$3.75.

PAEONY, FLOWERED**Crimson**

DIANA—Crimson, violet reflected; large flowers, finely shaped, long stalks. Each, 35c.

SHOW**Buff**

GRAND DUCHESS MARIE—This is a fine variety of rich buff overlaid orange; a fine bloomer, stems, twelve inches long. Each, 40c.

LAVENDER

EMILY—Delicate lavender overspread with white. The daintily blended colors make this an exceptionally beautiful Dahlia. Each, 25c.

MAROON

BLACK BEAUTY—A tall grower with large flowers. Purple maroon. Each, 35c.

Red

MRS. J. P. SMITH—The largest show Dahlia in its color yet seen or grown by us and is a color of two shades, being a rich red, with a cherry blush shading all over the coloring. Great bloomer and a fine stem. Each, 25c.

White

DELIGHTED—One of the largest and finest show Dahlias in existence, immense double flowers six to eight inches across and is snow white. The center in many of the blooms is elongated in such a way it suggests the Roosevelt smile. Each, 25c.

MRS. MINNIE VOSSBURG—One of the very best free flowering, perfect balls; creamy white, long, wiry stems. Ideal for cutting. An early and continuous bloomer. Each, 35c.

W. W. RAWSON—Pure white overlaid with amethyst blue. This combination gives it the appearance of a delicate lavender. Each, 25c.

One each of these seven varieties of fine show Dahlias, \$2.00.

All 20c Dahlias: $\frac{1}{2}$ doz., \$1.10; doz., \$2.00.
All 25c Dahlias: $\frac{1}{2}$ doz., \$1.25; doz., \$2.25.
All 35c Dahlias: $\frac{1}{2}$ doz., \$1.80; doz., \$3.25.
All 40c Dahlias: $\frac{1}{2}$ doz., \$2.15; doz., \$4.00.

Gladioli

Gladioli are the most satisfactory, desirable and popular of all the garden bulbs. Nothing else of the kind costs so little, grows and blooms so readily in any soil or climate as Gladioli. They thrive and bloom with the least care and attention, and make a display which for brilliancy and beauty of coloring few bulbs can equal and none surpass. Plant any time from March to June.

In straight or assorted lots. All Gladioli at 60c per doz.; 50, \$2.25; 100, \$4.00.

At 75c doz.: 50, \$2.50; 100, \$4.25.
At 90c doz.: 50, \$3.00; 100, \$5.50.
At \$1.00 doz.; 50, \$3.25; 100, \$6.00.

Blue and Maroon

BARON HULOT—Good-sized flower; well arranged on straight spikes; color dark violet, bordering on blue. Each, 10c; $\frac{1}{2}$ doz., 50c; doz., 90c.

EMPRESS OF INDIA—Rich dark maroon, almost black. A rare color and a very fine variety. Each, 10c; $\frac{1}{2}$ doz., 55c; doz., \$1.00.

SCARSDALE—Very tall grower with large lavender colored flowers, shaded to dark rose. Each, 10c; $\frac{1}{2}$ doz., 50c; doz., 90c.

One dozen assorted of these three fine blues, \$1.00.

Pink

AMERICA—A beautiful soft flesh pink. By far the most vigorous and easily grown Gladiolus known. Strong and healthy with luxuriant dark-green foliage and a freedom of growth and flowering surpassing all others. Spikes two to three feet long, erect with a great number of large spreading blossoms, all facing one way and showing a color, the delicacy and beauty of which it is impossible to describe or reproduce. It is an exquisite, soft lavender pink, very light, almost a tinted white. Each, 7c; $\frac{1}{2}$ doz., 35c; doz., 60c.

PANAMA—An introduction of sterling merit, is a favorite wherever high grade varieties are grown. It is similar to and has all the good qualities of America, but in color is a rich rose-pink. Unquestionably one of the finest. Each, 10c; $\frac{1}{2}$ doz., 55c; doz., \$1.00.

BULBS—Continued.

TACONIC—Bright lively pink, flecked and striped with shades of the same color. Each, 10c; ½ doz., 55c; doz., \$1.00.

One dozen assorted of these three lovely pinks, 90c.

Red and Scarlet

FIRE KING—Long, graceful spikes showing half a dozen immense blooms open at the same time. Color, intense fire-scarlet. More brilliant than Brenchleyensis, Cardinal, Mrs. Francis King or any other variety. Is perfectly grand; will become the leading cut-flower variety of its color. Each, 7c; ½ doz., 35c; doz., 60c.

MRS. FRANCIS KING—Of exceptional value for cut flower use. Color is a very pleasant light scarlet, strikingly attractive. Separate flowers often measure 4 to 5 inches across and 5 to 6 flowers are open at one time. Each, 7c; ½ doz., 35c; doz., 60c.

RUBY KING—Fine, compact spike, tall and graceful, flowers of great substance and of an intense dark ruby-red glowing with a peculiar richness; very fine indeed. Each, 10c; ½ doz., 55c; doz., \$1.00.

One dozen assorted of these extra fine reds, 75c

Spotted

COLUMBIA—Light orange, scarlet splashed and blotched with bluish purple. Each, 8c; ½ doz., 40c; doz., 75c.

CRACKER JACK—Dark red, throat spotted with yellow and maroon. Each, 7c; ½ doz., 35c; doz., 60c.

HALLEY—The predominating color of these flowers is delicate salmon-pink with a slight roseate tinge, though the lower petals bear a creamy blotch with a stripe of bright red through the center, the whole producing a delightful effect. Each, 10c; ½ doz., 55c; doz., \$1.00.

MRS. FRANK PENDLETON—The flowers are very large and well-expanded, of a lovely flushed salmon-pink with brilliant carmine, or deep blood-red blotches in the throat, presenting a vivid contrast of orchid-like attractiveness. It is of the Lemoiné type in form and color effect, with a gandavensis stem, so that it takes up water freely and opens up perfectly nearly every flower after being cut and placed in water. Each, 10c; ½ doz., 55c; doz., 90c.

PRINCEPS—The *Amaryllis*-flowered Gladiolus. A most striking variety. The individual flowers are 5½ inches in diameter and sometimes one inch larger. The petals are very wide and rounded, well reflexed, forming an almost circular flower. The color is brilliant scarlet-crimson with three broad white blotches on the lower petals. Spikes produce 12 to 15 flowers and grow 4 feet in height. It is exceptionally healthy and its flowering is continuous. Each, 10c; ½ doz., 55c; doz., \$1.00.

One dozen assorted of these five well selected Spotted Gladiolas, 90c.

White

CRYSTAL WHITE—Very tall spike flowers white with faint marking. Each, 8c; ½ doz., 40c; doz., 75c.

PEACE—Flowers are large, of good form, correctly placed on a heavy, straight spike. Beautiful white, with pale lilac feathering on inferior petals. Each, 10c; ½ doz., 55c; doz., \$1.00.

PURITY—Pure white with small carmine mark on lower petal. Has no tinge of color. Strong, straight spike. Each, 10c; ½ doz., 55c; doz., \$1.00.

SNOW KING—A very white variety similar in habit to Augusta, but remains white in all kinds of weather. A number of certificates of merit. Each, 7c; ½ doz., 35c; doz., 60c.

One dozen assorted of these four extra choice whites, 90c.

Yellow

PRIMULINUS—Very rare species from Victoria Falls, South Africa; grows three' to four feet tall and is very vigorous, the flowers are of good size and are a clear primrose-yellow. It blooms late in July. Each, 8c; ½ doz., 40c; doz., 75c.

VICTORY—Clear sulphur-yellow, the ends of the petals slightly suffused pink. Spike tall and erect. Each, 8c; ½ doz., 40c; doz., 75c.

YELLOW BIRD—Kund.—A very pleasing shade of yellow, penciled with dark wine color on lower petals. Each, 10c; ½ doz., 55c; doz., \$1.00.

One dozen assorted of these three specially selected yellow Gladioli, 85c.

In straight or assorted lots all Gladioli:
At 60c per doz.; 50, \$2.25; 100, \$4.00.
At 75c per doz.; 50, \$2.50; 100, \$4.25.
At 90c per doz.; 50, \$3.00; 100, \$5.50.
At \$1.00 per doz.; 50, \$3.25; 100, \$6.00.

Clover Leaf Gladioli Mixtures

CLOVER LEAF MIXTURE—Gladioli mixtures can be purchased at almost any price and under almost any name, and it is a difficult matter for the purchaser to decide which is best. Our advice would be not to purchase small bulbs simply because they are quoted cheaper. Difference in cost is far more than compensated for in the better satisfaction obtained by planting the larger bulbs.

This year we are offering our Clover Leaf Mixture in two sized bulbs, the only difference being difference in size, as the mixtures are exactly alike.

These mixtures are made up of Kelway's Seedlings, and varieties that in some way have got separated from their labels or markings.

The real worth of Kelway's Seedlings are well known and recognized, and by putting in all named varieties that for any reason have become unidentified, or which we wish to discontinue, assures the most ideal mixture that can be secured.

No. 1 Bulbs: ½ doz., 30c; doz., 50c; 50, \$2.00; 100, \$3.50.

No. 2 Bulbs: ½ doz., 25c; doz., 40c; 50, \$1.50; 100, \$2.75.

LILY OF THE VALLEY—One of the most satisfactory and charming spring flowering plants, producing in profusion its delicate bell-shaped delightfully fragrant white flowers. Lillies of the Valley thrive in any common soil, are perfectly hardy, and will succeed in shady situation. It is almost impossible to secure any of these this season, but we believe we have our stock secured and hope to be able to fill all our orders in full. 4 for 25c; doz., 60c; 50, \$2.25; 100, \$4.00.

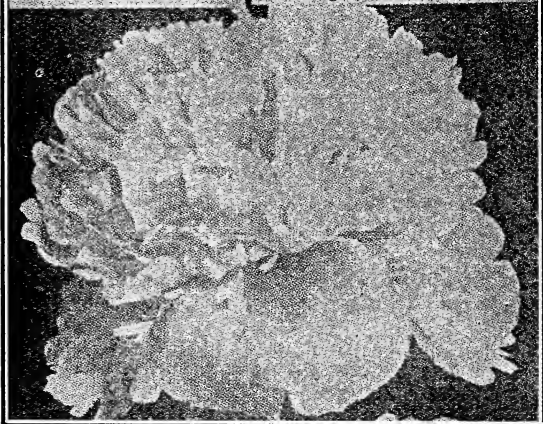


BULBS—Continued

Paeonies

There is no hardy perennial which equals the Paeony in beauty and usefulness. Once planted, the plants and flowers increase in size and beauty with age. They are as hardy as oaks and as handsome (many as fragrant) as roses. When the plants are through blooming they are as handsome and ornamental as most of the hardy shrubs. The plants are practically immune from insects. We would advise our customers to beware of "cheap Paeonies. An inferior variety will take as much care and space as a choice one, and the first cost of a Paeony is nothing compared to the disappointment after years of waiting.

Festiva Maxima The Queen of Paeonies



In straight or assorted lots:

All 35c Paeonies:	\$1.90	1/2 doz.;	\$3.50 doz.
All 50c Paeonies:	\$2.50	1/2 doz.;	\$4.50 doz.
All 60c Paeonies:	\$3.00	1/2 doz.;	\$5.50 doz.
All 75c Paeonies:	\$4.00	1/2 doz.;	\$7.50 doz.
All 90c Paeonies:	\$5.00	1/2 doz.;	\$9.50 doz.
All \$1.00 Paeonies:	\$5.50	1/2 doz.;	\$10.00 doz.

LILAC

ASA GRAY—Rose type, midseason. Large, full imbricated rose-formed bloom; guarded petals salmon-flesh, center very full and perfectly formed; color, lilac sprinkled with minute dots of deeper lilac; striking, imposing and beautiful. Each, 90c.

MME. CHAUMY—Pale lilac-rose, center is slightly darker; medium size; very compact, rose type; very free; medium height. Midseason. Each, 75c.

Pink

ALBERT CROUSSE—Large, very full, evenly formed bloom; fresh-pink; center shaded with clear pink. Petalage small and very dense. An unusually high-class Paeony. Each, \$1.00.

EDULIS SUPERBA—This is the famous Decoration Day Peony. Color, a beautiful bright, clear pink, with silvery reflex. To those who want flowers on Decoration Day, buy Edulis Superba. Each, 50c.

EUGENIE VERDIER—Pale hydrangea-pink, collar lighter; center deeper flecked crimson; fragrant; very distinct from Eugene Verdier, with which it is often confused. Each, 90c.

L'INDISPENSABLE—Immense flowers of a delicate lilac-pink with darker shading toward the center. Tall, upright grower and profuse bloomer. A very desirable late flowering variety. Each, 60c.

PURPLE

GLORIE DE DOUAI—Purplish scarlet-crimson with black reflex. Late. Each, 50c.

Red

FELIX CROUSSE—The ideal of self-colored red Peony, large, globular and compact, an even shade of bright red without trace of any other color; a strong, vigorous grower with long stems, making this variety one of the most important commercial cut-flower sorts. Each, 75c.

MADAME BOLLET—Very compact, globular double bloom; color, clear rose with silvery white reflex linguated with carmine; fragrant; very fine. Each, 35c.

MONS. KRELAGE—Deep currant red, with amaranth red center. Each, 75c.

White

AVALANCHE—Avalanche, in our estimation, is one of the finest Paeonies grown. Large, convex bloom of perfect form; color, milk-white, with cream-colored center; has ruby-colored markings of rare delicacy and beauty on some of its petals. A superb Paeony. None better. Each, 75c.

COURONNE D'OR—Immense, very full imbricated bell-shaped blooms; color snowy with yellowish reflex with light carmine edges on a few center petals. Grand cut-flower sort. Comes in after all other long-stemmed whites are done. Very late. Each, 75c.

FESTIVA MAXIMA—This truly superb variety, the finest white in cultivation, has for nearly three quarters of a century been the standard by which all other sorts have been judged. A giant in growth. No other variety combines the wonderful purity of color, freedom and earliness of flower, handsome foliage as this "Queen of Paeonies." This variety is probably better known throughout the world than any other. Each, 50c.

QUEEN VICTORIA—A strong growing, pure white variety with creamy white center. One of the most popular standard cut flower varieties. Each, 35c.

In straight of assorted lots:

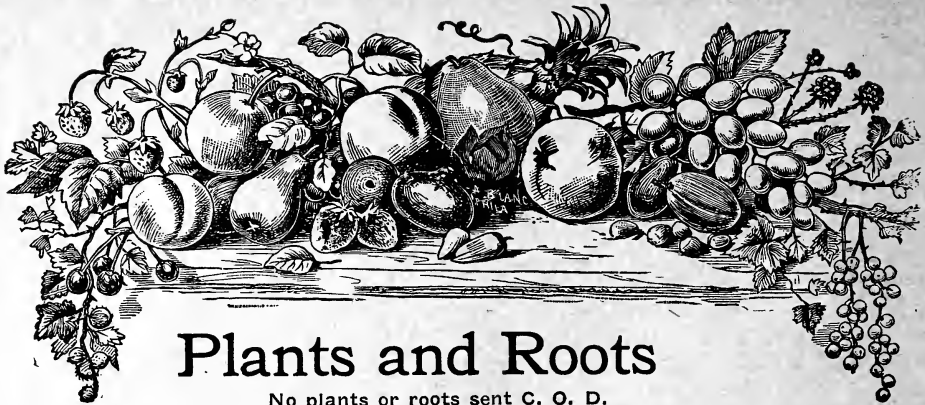
All 35c Paeonies:	\$1.90	1/2 doz.;	\$3.50 doz.
All 50c Paeonies:	\$2.50	per 1/2 doz.;	\$4.50 doz.
All 60c Paeonies:	\$3.00	per 1/2 doz.;	\$5.50 doz.
All 75c Paeonies:	\$4.00	per 1/2 doz.;	\$7.50 doz.
All 90c Paeonies:	\$5.00	per 1/2 doz.;	\$9.50 doz.
All \$1.00 Paeonies:	\$5.50	per 1/2 doz.;	\$10.00 doz.

Tritoma, or "Red-Hot Poker" Plant

TRITOMA PFITZERI—A great improvement upon the Tritoma Uvaria Grandiflora, blooming for a much longer period. It grows from four to six feet high; the flower-spike is often five feet high, and the flower measures twelve to fifteen inches long by four inches in diameter. They are a dazzling scarlet, lower half of flower tinged with rich orange. A clump makes a striking show. Each, 25c; 1/2 doz., \$1.25; doz., \$2.25.

ROOTS. FLOWERING, HARDY PERENNIALS

Variety.	Time of Blooming.	Height	Color	Prices	
				Prepaid Each.....	Prepaid dozen.....
Alyssum, Saxatile	Spring	1 foot.....	Yellow.....	\$0.30	\$3.00
Aquilegia (Columbine)					
Hybridum	June-Sept.	30 inches.....	Mixed.....	.30	3.00
Aquilegia (Columbine)					
Elegantissima	June-Sept.	30 inches.....	Mixed.....	.30	3.00
Aquilegia (Columbine)					
Chrysanta	June-Sept.	30 inches.....	Yellow.....	.30	3.00
Aquilegia (Columbine)					
Dwarf	July.....	15 inches.....	Purple.....	.30	3.00
Aster, Alpina (Everlasting)	May-June	1. inches.....	Blue.....	.30	3.00
Aster, Hybridum (Everlasting)	Aug.-Oct.	36-48 inches.....	Mixed.....	.30	3.00
Aster, Beauty of Callwall (Everlasting)					
Aug.-Oct.	36 inches.....	Purple.....		.35	3.75
Aster, Rain of Blood (Everlasting)					
Aug.-Oct.	36 inches.....	Red.....		.35	3.50
Aster, Climax (Everlasting)	Aug.-Oct.	36 inches.....	Light Blue.....	.35	3.50
Aster, Lill Fardell (Everlasting)	Aug.-Oct.	36 inches.....	Carmine.....	.35	3.50
Avens, Geum, Atrosanguineum	June-Sept.	1½ feet.....	Scarlet.....	.35	3.50
Baby's Breath Gypsophila,					
Single	April-May	2 feet.....	White.....	.30	3.00
Baby's Breath Gypsophila,					
Double	April-May	1½ feet.....	White.....	.40	4.25
Bleeding Heart, Spectabilis	Summer	2 feet.....	Rose.....	.55	6.00
Campanula (Canterbury Bell)					
Carpatica	July-Aug.	12 inches.....	White, Blue, Pink.....	.30	3.00
Campanula (Canterbury Bell)					
Cup and Saucer	June-July	30 inches.....	All colors.....	.30	3.00
Campanula (Canterbury Bell)					
Pyramidalis Compacta	July-Aug.	30 inches.....	Blue.....	.30	3.00
Campanula (Canterbury Bell)					
Percicifolia, The Fee	July-Aug.	30 inches.....	Blue.....	.30	3.00
Chrysanthemum (Shasta Daisy)					
Alaska	June-Nov.	24 inches.....	White.....	.30	3.00
Chrysanthemum (Shasta Daisy)					
Mrs. Lothar Bell	June-Nov.	24 inches.....	White.....	.30	3.00
Chrysanthemum (Shasta Daisy)					
Common Early Flowering	May-June	24 inches.....	White.....	.30	3.00
Coreopsis, Grandiflora	May-Oct.	24 inches.....	Yellow.....	.30	3.00
Delphinium (Larkspur)					
Formosum	June-Nov.	36 inches.....	Blue.....	.30	3.00
Delphinium (Larkspur)					
Hybridum	June-Nov.	60 inches.....	Blue.....	.30	3.00
Delphinium (Larkspur)					
Belladonna	June-Nov.	60 inches.....	Light Blue.....	.30	3.00
Delphinium (Larkspur)					
Chinensis	June-Nov.	30 inches.....	White or Blue.....	.30	3.00
Delphinium (Larkspur)					
Dwarf	June-Nov.	12 inches.....	Blue.....	.30	3.00
Dianthus (Pinks), Grass or					
Scotch Pink	May-July	12 inches.....	Mixed.....	.30	3.00
Dianthus (Pinks), Caesius	June-July	8 inches.....	Pink.....	.30	3.00
Dianthus (Pinks), Sub Acaulis	June-July	6 inches.....	Rose.....	.30	3.00
Fox Glove, Digitalis, Gloxinea-					
flora	June-Aug.	5 feet.....	Mixed.....	.30	3.00
Garilardi (Blanket Flower)	Spring & Summer	2 feet.....	Scarlet.....	.30	3.00
Golden Glow, Rudbehias	Aug.-Oct.	6 feet.....	Yellow.....	.30	3.00
Hollyhocks, double	July-Oct.	4 feet.....	Scarlet.....	.30	3.00
Hollyhocks, double	July-Oct.	4 feet.....	White.....	.30	3.00
Hollyhocks, double	July-Oct.	4 feet.....	Yellow.....	.30	3.00
Iberis, Little Gem	April-Aug.	1 foot.....	White.....	.30	3.00
Iris, English	June	24 inches.....	Mixed.....	.30	3.00
Iris, Liberty	May-June	30 inches.....	Yellow, White Edged.....	.30	3.00
Iris, Siberian	June	24 inches.....	Blue.....	.30	3.00
Iris, Spanish	June	24 inches.....	Mixed.....	.30	3.00
Lily of the Valley, Pips	May-June	¾ foot.....	White..... doz.	.75	
Phlox	Fall	2½ feet.....	White, Red, Pink.....	.30	3.00
Pyrenthrum, Hybridum	Fall	2 feet.....	Mixed.....	.30	3.00
Sweet William,					
Dianthus, Crimson	June-July	24 inches.....	4 dif. colors.....	.30	3.00
Sweet William,					
Dianthus, White	June-July	24 inches.....	4 dif. colors.....	.30	3.00
Sweet William,					
Dianthus, Salmon	June-July	24 inches.....	4 dif. colors.....	.30	3.00
Sweet William					
Dianthus, Scarlet	June-July	24 inches.....	4 dif. colors.....	.30	3.00
Veronica, Repens	May	¾ foot.....	White.....	.30	3.00
Violets	Spring	6 inches.....	Blue.....	.25	2.50



Plants and Roots

No plants or roots sent C. O. D.

The importance of a good foundation is readily acknowledged and this fact holds as good in the vegetable kingdom as under any other conditions, therefore it is of the greatest importance to select and plant only roots and plants that have been grown from a good ancestry. It is likewise true that one cannot always tell these things by merely looking at the plants or roots, therefore it is usually best to make your purchases from a house that has won for itself a

reputation by square dealing and by furnishing good, reliable stock. The selection of our seed is always given the utmost care, and then our plants and roots are attended to in such a way that insures the best growth and development.

We are able to supply the transplanted plants in most varieties, and would recommend these especially where there are only a few wanted. We would also recommend the 2-year-old roots in preference to 1-year-old.

PLANTS—FLOWERING—Perennials and Annuals

Variety	Prices	
	Postpaid	Postpaid
Alyssum	Doz. \$0.30	100 \$1.60
Asters .....	.30	1.50
Daisies .....	.35	1.80
Carnations .....	.35	1.80
Cosmos .....	.35	1.80
Dahlias .....	.35	1.80
Dusty Miller .....	.30	1.60
Geranium, 3-inch pots.....	.25 each	2.50 doz.
Heliotropes .....	.35	1.80
Lobelia .....	.35	1.80

Variety	Prices	
	Postpaid	Postpaid
Marigold	Doz. \$0.35	100 \$1.80
Mignonette .....	.30	1.60
Pansies .....	.60-80	2.50-4.50
Petunia .....	.35	1.80
Salvia .....	.35	1.80
Snapdragons .....	.30	1.60
Stocks .....	.35	1.80
Verbenas .....	.30	1.60
Wallflowers .....	.35	1.80
Zinnias .....	.35	1.80

PLANTS—VEGETABLES

Variety	Postpaid			Not Postpaid	
	Doz.	50	100	1000	5000
Brussels Sprouts	\$0.20	\$0.50	\$0.75	\$	\$
CABBAGE—					
Early Jersey Wakefield, transplanted.....	.25	.75	1.00	7.00	
Early Jersey Wakefield, not transplanted.....	.20	.50	.75	5.00	
Danish Ball Head, not transplanted.....	.20	.50	.75	5.00	
Red, not transplanted .....	.20	.45	.65	3.50	
Copenhagen Market, not transplanted.....	.25	.75	1.00	7.00	
CAULIFLOWER—					
Snowball, transplanted .....	.30	.90	1.25	12.00	
Snowball, not transplanted .....	.25	.75	1.00	7.00	
CELERY—					
White Plume, transplanted .....	.25	.75	1.00	7.00	
White Plume, not transplanted .....	.20	.50	.75	5.00	
Golden Self-Blanching, transplanted.....	.25	.75	1.00	7.00	
Golden Self-Blanching, not transplanted.....	.20	.50	.75	5.00	
Celeriac .....	.25	.75	1.00		
Egg Plant .....	.25	.75	1.00	7.00	
Parsley .....	.25	.75	1.00		
PEPPERS—					
Crimson Giant .....	.25	.75	1.00	7.00	
Ruly King, transplanted .....	.25	.75	1.00	7.00	
Bull Nose, transplanted .....	.25	.75	1.00	7.00	
Cayenne, transplanted .....	.25	.75	1.00	7.00	
Cherry, transplanted .....	.25	.75	1.00	7.00	
Sage, transplanted .....	.30	.85	1.25		

TOMATOES—

	Postpaid			Not Postpaid	
	Doz.	50	100	1000	5000
Earliana, transplanted	\$0.30	\$0.75	\$1.25	\$8.00	\$35.00
Earliana, not transplanted .....	.25	.65	1.00	4.00	17.50
Dwarf Champions, transplanted .....	.30	.75	1.25	8.00	35.00
Dwarf Champion, not transplanted.....	.25	.65	1.00	4.00	17.50
Husk or Ground Cherry, transplanted.....	.30	.75	1.25		

Roots

Variety

ASPARAGUS—

	Postpaid			Not Postpaid	
	Doz.	50	100	1000	5000
Palmetto, 1 year old.....	\$0.25	\$0.60	\$0.90	\$6.00	\$27.50
Palmetto, 2 years old.....	.30	.85	1.25	10.00	
Palmetto, 3 years old.....	.40	1.25	2.00	15.00	
Hop .....	.85	3.00	5.00		
Horseradish .....	.35	1.00	1.50	10.00	
Mint .....	.75	2.50	4.00		

	Postpaid			Not Postpaid	
	Each.	Doz.	50	100	500
Chives, small bunch, postpaid.....	\$0.15	\$1.25			
Rhubarb, 1 year old.....	.15	1.00	3.00	5.00	15.00
Rhubarb, 2 years old.....	.20	1.50	4.50	6.00	20.00

STRAWBERRIES

AROMA—Among the best of the late ripening varieties. In comparison with the Gandy, it will be found that it commences to ripen a little earlier and will continue to the end of Gandy's season and is similar to it in size and productiveness. Quality the best of any, comes nearer being the true strawberry flavor than all others. Its shipping qualities are of the best.

CLARK'S SEEDLING—This variety originated in our state, a seedling of the old popular Wilson variety. Like the Hood River, a near relation, it is unsurpassed as a shipping variety and in some sections very prolific.

GANDY—A variety that has not yet today found its equal as a truly reliable and all-round late producing berry. The plant is a rampant grower, having strong fruit stems, holding a heavy weight of the fruit erect; slow in forming, and maturing, therefore coming into the market when the early and mid-season varieties are about done fruiting.

GLEN MARY—A bright, handsome, prolific, standard sort, grown the country over and perfectly reliable. Some large growers claim for this the par excellence in strawberries.

GOLD DOLLAR—An extra early variety originating in California. It is very productive and great promises are made for its future place in the strawberry world.

HOOD RIVER—The leading standard shipping variety. The berry that has made the town of its name famous, and its growers financially rich. Dark red color, uniform size, good quality, but not heavy in yield. A specialty berry

for the grower whose market is somewhat distant.

MAGOON—Of first quality, great productiveness, attractive shape and color; good for canning.

MARSHALL — Produces remarkably large, beautiful fruit, resembling the far-famed Glen Mary, that we are pleased to add it to our list and put it in the Magoon and Senator Dunlap class, which is sufficient to guarantee its favor.

OREGON—This variety is of late introduction and somewhat resembles the old Wilson type of a strawberry. With a fadeless, dark red exterior; the deep red color is extended clear to the center of the fruit. Exceptionally fine for canning and attractive in the box. Any variety that we offer will fertilize it except Gandy or Aroma.

SENATOR DUNLAP—Its color is a rich dark red, with glossy finish. It has become a very popular variety, perhaps on account of its uniformity.

WARFIELD—The most popular pistillate variety grown. It is a large, beautiful, cone-shaped berry with a fadeless, dark red exterior; the deep red color is extended clear to the center of the fruit. Exceptionally fine for canning and attractive in the box. Any variety that we offer will fertilize it except Gandy or Aroma.

WM. BELT—Nothing better for quality, shape and attractiveness. A reliable and trustworthy variety; ripens evenly; prolific and will meet the expectations of the most fastidious.

	Postpaid				By Express—Not Postpaid					
	Doz.	25	50	100	200	300	400	500	1000	
AROMA (S)	\$0.35	\$0.50	\$0.90	\$1.50	\$2.25	\$3.00	\$3.75	\$4.25	\$8.00	
CLARKS SEEDLING (S) .....	.35	.50	.90	1.50	2.25	3.00	3.75	4.25	8.00	
GANDY (S) .....	.35	.50	.90	1.50	2.25	3.00	3.75	4.25	8.00	
GLEN MARY (S) .....	.35	.60	1.15	1.75	2.50	3.25	4.25	5.25	10.00	
GOLD DOLLAR (S) .....	.35	.60	1.15	1.75	2.50	3.25	4.25	5.25	10.00	
HOOD RIVER (S) .....	.35	.50	.90	1.50	2.25	3.00	3.75	4.25	8.00	
MAGOON (S) .....	.35	.50	.90	1.50	2.25	3.00	3.75	4.25	8.00	
MARSHALL (S) .....	.35	.60	1.15	1.75	2.50	3.25	4.25	5.25	10.00	
OREGON .....	.35	.60	1.15	1.75	2.50	3.25	4.25	5.25	10.00	
SENATOR DUNLAP (S) .....	.35	.60	1.15	1.75	2.50	3.25	4.25	5.25	10.00	
WARFIELD (P) .....	.35	.50	.90	1.50	2.25	3.00	3.75	4.25	8.00	
WM. BELT (S) .....	.35	.50	.90	1.50	2.25	3.00	3.75	4.25	8.00	

Everbearing

Progressive

This wonderful ever-bearer has become so well known and has proven such a favorite that it is unnecessary for us to give a long description. As a home garden berry the Progressive fills the bill. The Progressive is a persistent bearer from the time plants are set in the spring until hard freezing, and again is the first to bloom in the following spring, and yields a good crop same time as other early varieties. The quality of this berry is most excellent.

Superb

The fruit of Superb is large, glossy, firm and of fine quality, being a strictly fancy variety. It is not so productive and requires more care and attention than the Progressive, but makes up for this by being larger in size, presenting a better appearance, and having a finer flavor. In some sections of the Northern states, Superb gives better results than the Progressive.

Price of both varieties:

Doz.	25	50	100	200	300	400	500	1000
\$0.50	\$1.15	\$1.90	\$3.25	\$5.50	\$7.50	\$9.00	\$10.50	\$20.00

Quantities up to and including 100 postpaid; larger quantities at purchaser's expense.

Seed Potatoes

Potatoes can be grown in any soil, provided it is well drained, but, if grown on sandy, rich soil, they will be of better quality than if planted on clay soils. Sod land is most excellent for this crop. It is best to put the manure on one year before the potatoes are to be planted, and in no case raw stable manure should be used, as it is liable to give the scab. In cutting potatoes for planting, do not cut the pieces too small and be sure to have 1 to 3 eyes on them. The constant use of very small tubers should be avoided, or they are likely to run out. The sets should be planted from 3 to 4 inches deep, according to the time of planting, in rows 3 feet apart and 16 to 18 inches in the rows.

PRICES—Owing to the great uncertainty regarding values we are unable to make definite prices at present, but quote approximately as follows, purchaser paying all carrying charges: Less than 25 lbs., 8c; 25 lbs., \$1.50; 50 lbs., \$2.75; 100 lbs., \$5.00. If you are needing a quantity we prefer that you write for prices as these prices are not guaranteed. Unless otherwise advised we will send full value at prices prevailing at time of shipment for money received.

Early

OHIO—A leading early sort, earlier than the Early Rose, but not so productive. Round, short, and thick tubers, smooth and solid; cooks dry and mealy and matures very early.

ROSE—This variety has been a great favorite for many years and many growers still claim that it has never been excelled in quality and productiveness. Potatoes are long in shape, good size and light pink in color at the bud end. They cook mealy and are of the finest flavor.

SIX WEEKS—This is recognized as being one of the very earliest varieties grown, and in addition it is also one of the best yielders of the early varieties. Besides these two very important advantages, it possesses a third, namely: Its quality; and quality is the great pivotal point at which we are aiming in the production of all our seeds, plants and roots.

Late

BURBANK—Continues in good demand and is more largely used than any other. It is of good size, of fine form and an excellent yielder. The flesh is white, very mealy and of fine flavor and quality.

MacGREGOR—This new, late potato originated in Manitoba about six years ago and it immediately became a general favorite. In appearance it closely resembles the old, well-known Carmen No. 3, same shape, with nice white netted skin, a grand good cooker at all times, a remarkable keeper and a tremendous yielder. One of the most noticeable features of this potato is its wonderful vigor.

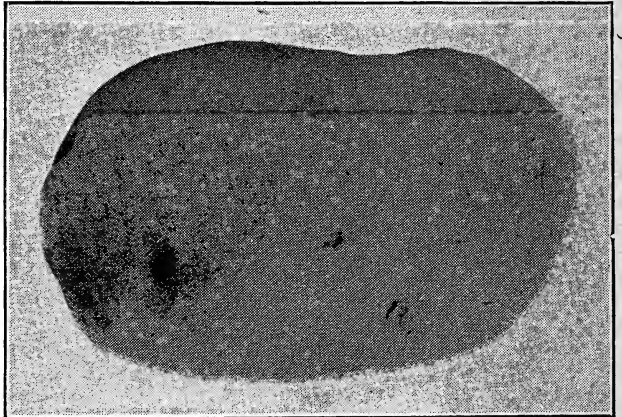
NETTED GEM—The hardiest, most vigorous in growth most productive, and the best in table quality of all potatoes. It has proved to be unequalled for main crop. The vines are strong, with deep green foliage. In form the tubers are medium long. The eyes are small and there is very little waste in paring. The skin is thin and very smooth with the exception of very small depressions which give it the appearance of being netted and from which it derives its name. The flesh is fine grained and cooks up mealy white. It is very free from scale and one of the very best keepers on the market.

Medium

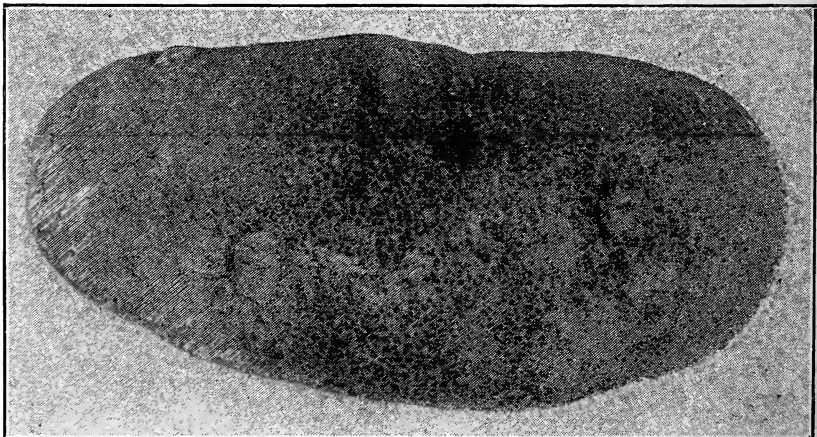
IRISH COBBLER—The tubers are round, somewhat flattened with rather deep eyes and are medium to large in size. The skin is smooth, finely netted, and white in color. Flesh white of fine quality and flavor.

This is a very vigorous grower, far less liable to knot and crack than many varieties and is nearly immune to the internal brown spot that affects some other sorts. It is a splendid shipper.

MICHIGAN—This is a second early, rather long, white potato, which produces in time to command the high early market prices and yet yields a crop which compares favorably with the standard late kinds and twice as heavy as the earlies.



MacGregor

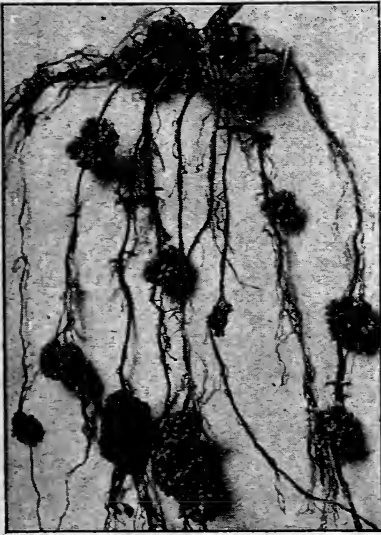


Netted Gem

ONE ACRE**\$1.00****Postpaid \$1.10****FIVE ACRES****\$4.00****Postpaid \$4.25**

**GUARANTEED
PURE CULTURE INOCULATION**

Help Your Crops—Enrich Your Land



**Nodules or Nitrogen Sacks
Produced with Nodule-Bacter.**

Legumes, when inoculated, enrich the soil with nitrogen to grow good crops of any kind. Nitrogen is the most important plant food—and expensive to buy in commercial fertilizers. The air is four-fifths nitrogen—the soil is full of air—but plants cannot absorb it without the aid of nitrogen gathering bacteria. Legumes without the presence of the proper bacteria rob the soil of nitrogen, making it poorer, the same as do other crops, and since nearly all soils are short of nitrogen, it is very important that legume crops should be soil-builders not soil-robbers.

Grow Better Crops

— WHICH —

IMPROVE YOUR LAND

Some soils may contain enough of the proper bacteria, however, many soils do not. Legume crops not amply supplied with the nitrogen gathering bacteria, but on the contrary may be wearing it out. Since the importance of these bacteria is an established fact, it is most advisable to make sure of having crops well supplied. This can be done by using reliable inoculating cultures on the seed before planting. NODULE-BACTER is the highest grade—most successful inoculation for all the legume seeds. NODULE-BACTER is a pure culture, or growth of nitrogen gathering bacteria. When applied to the seed of legume crops large quantities of nitrogen is made available. This nitrogen is made available in the little nodules or swellings attached to the plant roots, thus this valuable fertilizer—nitrogen—is stored in the soil for crops that follow.

Save Fertilizer Expense

A one-acre package of NODULE-BACTER used on a leguminous crop will gather and store nitrogen equivalent to 1000 pounds of nitrate of soda and at the same time greatly increase the growing crop both in size and feeding value.

We supply these cultures to our customers for the reason that they produce the best results of any on the market and are sold at reasonable prices. When you buy from us you save fully 50% on the cost of your inoculation and get the best.

Nodule-Bacter is prepared for

**Alfalfa
All Clovers
Sweet Clover**

**Cow Peas
Soy Beans
Vetches
Canada Peas**

**Garden Peas
Green Beans
Sweet Peas**

When ordering be sure to give the names of crops to be inoculated.
For family use we have the inoculation for Beans, Peas and Sweet Peas in small bottles.

PRICES: small bottles, 25c, postpaid 30c; acre package, \$1.00, postpaid \$1.10;
five-acre packages, \$4.00, postpaid \$4.25.

Clovers

Great care should be exercised in purchasing grass and clover seeds. This is even more important than with other seeds, for, on account of being perennials, and the land not being cultivated, the farmer has not an opportunity to cultivate and thus destroy any weed seeds that might be sown with grasses and clovers.

Owing to the market changes we cannot quote prices. When ready to buy write us for prices, stating quantity wanted, or if you send money, we will ship seed to cover amount sent.

Alfalfa or Lucerne

Alfalfa has long been in many states and is fast becoming in this state a crop of inestimable value. Its chief merit lies in the fact that it may be cut from 2 to 4 times a season, each cutting bringing enormous yields of sweet and nutritious forage which is much relished by all kinds of stock. Care should be taken when cattle are first turned in not to allow them to overfeed, as it is liable to cause bloating. It is an excellent soiling crop and makes the best hay when properly treated, being in itself the nearest approach of any farm product to a perfect ration. The seed should be sown broadcast at the rate of 10 to 15 pounds per acre about the middle of April or earlier, should the ground be in good condition, without a nurse or cover crop. The soil must be deep, rich and well drained, and the seed bed well prepared.

The seed should never be sown on heavy, sticky clay land where water stands a short distance below the surface.

GRIMM ALFALFA—While what it known as the common alfalfa is the most popular and almost exclusively used, still there has been for a number of years other named varieties each claiming to be superior to the common alfalfa. The most widely advertised of these varieties is what is known as Grimm alfalfa. The originator of this variety has the following to say concerning it: "The Grimm alfalfa is much hardier than the ordinary kinds, and there is even strong reason to believe that it is the hardiest form of the cultivated plant. It not only endures extremely low temperatures with or without snow and other adverse conditions, but it can be cut with greater safety late in the fall and will bear more abuse in the way of pasturage than any other plant that has been compared with it until this time. There is some disagreement among investigators as to how Grimm alfalfa obtained its hardness, but there is no difference of opinion that it is hardy. Grimm alfalfa is cheaper than common alfalfa as it requires less seed per acre because of its large stooling habit, another reason for requiring less seed in seeding an acre is that the little plants are more persistent in establishing themselves. Grimm alfalfa is cheaper than common alfalfa because it will hold its stand and not thin out after the first severe winter. Because of its branch root system it will grow over a hard plain soil, and is adapted to wetter soil than the other alfalfa.



ALFALFA.

SEED BED—Deep plowing. Firm seed bed. Thorough pulverizing.

Common Alfalfa, lb., 60c, postpaid.

Grimm Alfalfa, lb., 75c, postpaid.

Write for prices, stating quantity wanted.

ALSIKE, or SWEDISH (Trifolium Hybrum)

—A perfect hardy variety which is rapidly growing in popular favor. It yields large crops of excellent hay and under favorable conditions may be cut several times during the season. It is also valuable for bees. It is well calculated to resist both drouth and excessive moisture. The hay of this variety is greatly preferred by some to that of Red Clover, for the reason that it is generally finer, brighter and not so dusty, making it better for horses. Lb., 70c, postpaid. Write for prices, stating amount wanted.



Alsike Clover

BOKHARA, OR SWEET—A variety of clover which, when young, resembles in growth alfalfa, but on mature development grows from four to six feet in height. It is extremely vigorous and especially adapted to waste lands, though by many prominent farmers and stock-raisers is used on good land for a crop forage. It is very vigorous growth, standing frost and drouth remarkably well, the tap roots penetrating the soil very deeply, and occasionally used as a drainage plant for wet soils. It will grow on almost any barren hillside, in bottoms, and is equally adapted to all good farming lands. Sweet clover is one of the most valuable of all crops for bees, being the main honey plant in many sections.

WHITE BLOSSOM—(Melilotus Alba)—This lives two years and then dies. It is the variety commonly referred to when "sweet clover" is mentioned and is the best for general use.

It is an erect branching biennial plant with woody stems, the first season growing 1½ to 3 feet high and developing a large root, in which is stored food material for the second season's growth. The growth the second season usually reaches a height of 4 to 7 feet. It bears flowers and seed the second season and then the plant dies, so it is readily controlled by cutting before it goes to seed, which will prevent any seed being self sown. Hulled seed. Lb., 45c, postpaid.

YELLOW BLOSSOM—(Melilotus Officinalis)—This variety belongs to the same family, as the White Blossom, but it is not so prolific in growth, will not produce so large a tonnage, does not grow quite so tall, but is from ten days to three weeks earlier.

The flowers are yellow instead of white. For bee pasture and fertilizing purposes, we believe it to be equally valuable. This variety is becoming more popular, owing to the very fact that it does not grow so coarse, hence considered by many to be more valuable for hay, likewise for pasture, as it does not run to stems as soon as the white blossom. Hulled seed, lb., 40c, postpaid.

Write for prices, stating amount wanted.

Essential for Best Results

SOIL — Well drained. Fertile. Free from weeds.

CLOVER—Continued

CRIMSON, OR SCARLET (*Trifolium Incarnatum*)—Highly recommended for pasture and fertilizing purposes. It is a thrifty annual, growing from twenty to thirty inches high, and has a beautiful crimson blossom. It germinates quickly, grows rapidly and stools abundantly. Lb., 40c., postpaid. Write for prices, stating amount wanted.

ESPERETTE, OR SAINFOIN (*Onobrychis Sativa*)—A deep rooting, perennial legume, extensively cultivated on dry, calcareous soils which are too barren for clover or alfalfa. It is rather difficult to establish, as plants are easily killed when young, but when once rooted, will live from ten to twenty years. Lb., 35c., postpaid. Write for prices, stating amount wanted.

RED MAMMOTH—Being a rank grower makes it most valuable for fertilizing purposes. Foliage, flowers and stem much darker than common Red Clover; ripens later than the latter, about the time Timothy Red Top and other grasses ripen, making thereby a much better quality of hay, when mixed with them. Lb., 70c., postpaid. Write for prices, stating amount wanted.

RED MEDIUM (*Trifolium Pratense*)—The standard clover for all purposes, either hay, pasture or for improving and enriching the soil. It is hardy and succeeds well on any good soil. It yields the heaviest crop of any clover except alfalfa, and makes superior hay—especially if mixed with timothy—either for dairy cows or for general use. Lb., 70c., postpaid. Write for prices, stating amount wanted.



RED CLOVER.

WHITE DUTCH (*Trifolium Repens*)—A low, close-growing clover with white blossoms, very fragrant. It does not attain sufficient height to be profitable for hay, but is superior for pasture, either for cattle or sheep, and unsurpassed for the production of honey. It also makes a beautiful lawn when mixed with Blue Grass. Fancy for lawn. Lb., 85c., postpaid. Write for prices, stating amount wanted.

GRASSES

BLUE CANADIAN (*Pea Compressa*)—A hardy variety growing on poorest and driest soils. Short (6 to 8 inches), hardy and wiry but high in nutritive value. Decidedly blue in color. Stems flattened. Invaluable for use on steep places or exposed situations. Lb., 35c., postpaid. Write for prices, stating quantity wanted.

BLUE, ENGLISH OR MEADOW FESCUE (*Festuca Pratensis*)—A variety growing three to four feet high. Roots, deep, and resists drouth better than most grasses. It succeeds on any ordinary soil; yields a heavy crop of superior hay; one of the best grasses for pasture. Valuable to mix with other kinds. Lb., 35c., postpaid. Write for prices, stating quantity wanted.

BLUE KENTUCKY—

This makes the best, sweetest and most nutritious pasturage for all kinds of stock. This grass is the first to start up in the spring and remains green until snow flies in the fall. It is very hardy and is uninjured by cold or dry weather, hot sun or tramping of hoofs. The roots are so thick and stout as to form a tough sod. Blue grass requires about two years to get well started and for that reason it is often sown in mixture with other grasses. It will do well on almost any land. Sometimes called "June Grass." Lb., 50c., postpaid. Write for prices, stating quantity wanted.

KENTUCKY
BLUE GRASS.

BROMUS INERMIS (Awnless Brome Grass)—Drouth defying, frost resisting. It adapts itself to almost every condition of soil and climate and to any use to which grass may be put, equalling in quality and rivaling in yield almost any other grass. The roots push through the soil and form fresh plants on every side. It starts from two to three weeks earlier in the spring than native prairie grass and it keeps green in the autumn longer than any of the useful grasses grown in the West. No amount of cold seems to be able to kill it. It bears up well under hot summer suns. It is an abundant producer of leaves and is much relished as pasture and hay. Lb., 40c., postpaid. Write for prices, stating amount wanted.

ORCHARD—It stands the drouth, grows well in the shade, does well in wet or poor ground. This grass furnishes excellent pasturage three weeks before any other, and after close grazing ten days' rest is sufficient for another growth. Cows fed on this will produce more and richer milk than on blue grass. It makes a very heavy sod and when well set remains for many years. It is especially adapted for winter grazing, as it remains green all season. Lb., 50c., postpaid. Write for prices, stating quantity wanted.



ORCHARD GRASS.



RED TOP (*Agrostis Vulgaris*)—A valuable grass for moist, rich soils where it thrives very luxuriantly. It is a good variety to sow with Timothy and Clover for meadow or pasture and is more permanent than either of the other two. It should be fed close, as, if it is allowed to grow up to seed, the cattle dislike it. On good soil it grows about two feet high; on poor gravelly land about half that height. It has been grown successfully even on alkali land where other grasses failed. Red Top is commonly known as Herd's Grass and it should be more extensively grown, especially in combination with other grasses. Hulled Seed, lb., 45c, postpaid. Write for prices, stating amount wanted.



RED TOP GRASS.

RYE, ENGLISH (*Lolium Percune*)—This is a valuable pasture grass which will bear close cropping. Produces an abundance of foliage, which remains bright and green during the season. The hay is relished by all kinds of stock. It will grow well on almost any land but does better in cool, moist locations. Lb., 30c, postpaid. Write for prices, stating quantity wanted.

RYE, ITALIAN (*Lolium Italicum*)—A quick-growing grass, attaining a height of 2½ to 4 feet. Thrives best on soils that are slightly moist, and will even stand considerable overflow. Grows easily and bears an abundance of foliage that makes the best and sweetest hay imaginable. Lb., 30c, postpaid. Write for prices, stating quantity wanted.

SUDAN GRASS was introduced into the United States in 1909 from Sudan under the name of Garawi. One-half pound of seed was received and the results were so very promising that plans were immediately made for testing it out thoroughly in all parts of the United States. As a result of these tests the Department of Agriculture reports that Sudan Grass will be of the greatest value in the states that are deficient in rainfall. These dry regions have no other satisfactory hay crop and Sudan Grass will be of immense value there.

Sudan Grass is strictly an annual and dies each year, reaching a height of from seven to nine feet. The stems are small and rarely thicker than a lead pencil. The plant stools wonderfully and produces under favorable conditions as many as 100 stalks from a single root. All stock relish the hay and thrive on it. Yields of from two to four tons per acre are common and under irrigation they run as high as eight to ten tons to the acre.

SEEDING—Sudan Grass should not be planted until the soil has become warm in the spring. Planting in cold soil only delays germination and dwarfs the early growth. It can be sown any time during the summer as a catch crop so long as 70 to 80 days intervene before the date of the first expected frost. Sudan Grass can be sown in rows 18 to 42 inches apart and cultivated like corn, or it can be drilled in with a grain drill or sown broadcast by hand. In the semi-arid sections it is much more profitable to seed it in rows and cultivate. The rows should be as close together as the tools available for cultivation will permit. Seeded in rows 36 to 42 inches apart. 2 to 3 pounds per acre of good seed are sufficient. In rows 18 to 24 inches apart 4 to 6 pounds, and drilled or broadcast 16 to 24 pounds per acre are required.

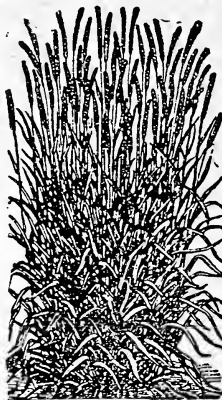
HARVESTING—When cut for hay it is best to cut just after full bloom, so that it will have as much time as possible for a second growth. After cutting it renews its growth promptly when moisture conditions are favorable, and in about 40 to 50 days another cutting is ready. The grass stools abundantly after first cutting.

It is interesting to note that while Sudan Grass is very drouth-resisting and makes good yields in dry sections, it also does exceedingly well under irrigation and under the latter conditions makes enormous yields of hay.

Summing it all up, Sudan Grass is a hay crop which seems to be especially adapted to the drier regions of the western states. There is always a big demand for hay and it is hard to estimate the value of a grass that will produce with certainty a good crop of hay in our western states.

Price. Lb., 40c, postpaid. Write for price, stating quantity wanted.

TALL MEADOW OATS (*Avena Elatio*)—A hardy perennial much used in the south and west. Its roots penetrate deep, and it thrives on any good soil. It yields a heavy crop and is valuable for both meadow and pasture. Lb., 40c postpaid. Write for prices stating amount wanted.



TIMOTHY.

TIMOTHY—On moist, loamy or clay soils it produces a larger hay crop than any other grass. It is not so well suited for light, sandy soils. Though preferring a moist, temperate climate, it withstands extreme heat and cold. Its hay is very nourishing and can be preserved for a long time. It should be cut when flowering, as, if left later, the hay becomes hard and coarse. It is often sown along with Red Clover, and the nutritive value of the hay is greatly increased by the mixture. Height, 2 to 3 feet. Lb., 30c postpaid. Write for prices, stating amount wanted.

Lawn Grass

A beautiful lawn adds greatly to the appearance of a home. In the making of a lawn two things are very important, namely: preparation of the seed bed, and quality of the seed sown.

The most important thing to consider in selecting seed for lawn grass is to obtain a proper mixture of several varieties, for two reasons: First, each variety is at its best during a certain part of the season. By properly choosing early, medium and late grasses, a smooth, even, green lawn is assured from early spring to late autumn. Second, a given area can support only so many grass plants of one kind, for they all absorb the same sort of food, but if several varieties are sown, the same area will support many more plants, as different sorts live on various elements in the soil. With these facts in mind our Clover Leaf mixture has been scientifically combined. Our experience of many years has given us an intimate knowledge of grasses, their habits and requirements. Strangers visiting Spokane frequently comment upon the beauty of our public parks and lawns. Our Clover Leaf mixture is used very extensively on both of these. In fact there is more of it used than all other mixtures combined.

In order to keep a lawn continually beautiful, it should receive frequent applications of fertilizers.

CLOVER LEAF LAWN GRASS—Lb., 60c, postpaid. Write for prices, stating quantity wanted.

Millets

The Millets are a valuable crop for the farmer who has lost his seeding, or for some other reason expects to be short of hay, for in 8 or 10 weeks from sowing it is ready to cut for hay.

Hungarian and Siberian Millets are the earlier varieties. Millet can be sown as early as the middle of May, or as late as July 10th, although when sown July 10th, the crop comes so late in September that it is hard to cure on account of the cool weather and shorter days.

Write for prices on Millets, stating quantity wanted. All Millets, 30c, lb., postpaid.

GOLDEN—This grows very rank and is one of the best varieties for hay or fodder. On good rich soil it will make a growth of 4 or 5 feet high, and although the hay may seem coarse, yet it is so tender that if cut at the right stage, which is when in full bloom, even the hogs will eat the cured hay quite greedily.

HOG—Very rich and thus especially valuable as a hog food. A very much prized peculiarity of this millet is that the seed ripens while the stem is yet green; thus, if cut promptly can be threshed for the seed, while the hay after being threshed will make excellent fodder.

HUNGARIAN—Is of fine growth, and makes an excellent hay. It has numerous succulent leaves, which furnish an abundance of green fodder, relished by all kinds of stock.

JAPANESE—Is of recent introduction and great claims are made for it as to productiveness and value as a forage plant. Its introducers say that it is a marvelous grower and luxuriant stooler. Recommended highly for feeding dairy cattle, young stock and sheep, being very rich in nutritious elements. Grows from four to seven feet tall, but is not harsh and woody, as other grasses are. In some sections of the country it is known as Barnyard Millet, while in other parts of the country it has been erroneously introduced under the name of Billion Dollar Grass by some seed houses.

SIBERIAN, OR RUSSIAN—Is claimed to be the most wonderfully productive and satisfactory forage plant, possessing in a superior degree all the essential merits of any of the older sorts. The claims made by its introducers are that it is from two to three weeks earlier than the Liberty Millet, is a much heavier cropper, that the hay is much finer, stalks more elastic and grows much taller, that it is rust-proof, and being of stooling habit, requires much less seed per acre.

WHITE WONDER MILLET—A Russian soldier, serving in the Russo-Japanese War, discovered this wonderful millet in China. He put a little of the seed in his knap-sack and when the war was over he came to the United States bringing his precious packet of seed with him.

White Wonder Millet has been raised in Western Kansas for several years and it is just as hardy and vigorous as other millets.

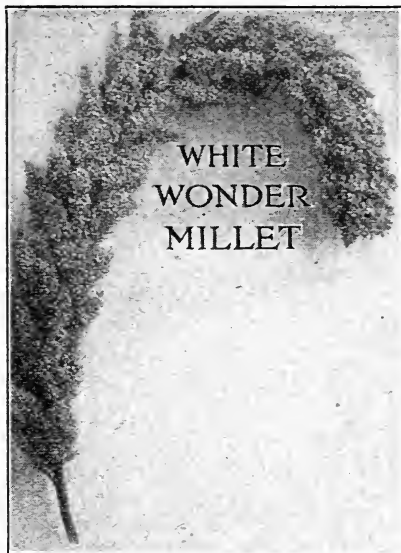
The most striking feature of White Wonder Millet is the size of the heads. The heads will run from eight up to eighteen inches and a single head will have as many as 15,000 seeds.

The yield of White Wonder Millet is extremely heavy, being fully half again as heavy as that of Liberty Millet. Some growers of White Wonder Millet claim that it will outyield other millets three to one.

Another very desirable feature of White Wonder Millet is its earliness. This variety is much earlier than Liberty Millet, but not quite as early as the Siberian variety.

The foliage is very heavy, the leaves broad, and therefore produces an immense amount of excellent fodder which cures very readily.

We believe that on account of the earliness, the immense yield of both grain and fodder, and the very vigorous growth which leave the ground clean, White Wonder Millet will soon take first place among millets. Write for prices on millets, stating quantity wanted. All millets, 30c lb., postpaid.



WHITE
WONDER
MILLET

Peas, Field

Field Peas are a very profitable crop and should be grown very extensively. They can be grown alone or with oats. When planted with grain and cut green they make a large amount of very rich feed; also very valuable for enriching the soil if plowed under. The dry peas make excellent hog feed and are quite fattening.

Write for prices on all field peas, stating variety and amount wanted.

BANGALIA—This variety has been highly recommended by our State College at Pullman, on account of its great yield. It is earlier than the other varieties of field peas, less liable to crack in threshing, has finer straw and makes better fodder, and the peas are green in color. **Lb., 20c, postpaid.**

CANADIAN WHITE—A leading kind; seed almost white; a heavy cropper. **Lb., 20c, postpaid.**

COW—Cow Peas are more tender than Canada or Field Peas and should not be sown until corn planting time. Cow Peas, being of very rapid growth during the warm weather, can be sown as late as the middle of July with reasonable assurance of a profitable crop, either for harvesting or plowing under. Are really small beans of vigorous vining habit and heavy foliage of great nutritious value, yielding five to nine tons of green feed per acre.

NEW ERA COW PEAS—A new, extra early variety, the quickest growing of any of the Cow Peas, maturing in about 60 days; specially adapted for planting north. **Lb., 25c postpaid.**

WHIPPOORWILL—A brown, speckled, medium sized pea. A very prolific seed yielder; matures about ten days later than the New Era; upright and vigorous grower. **Lb., 25c postpaid.**

Write for price on all field peas, stating variety and amount wanted.

Rape

DWARF ESSEX—Has been usually grown, until recent years, to furnish pasture for sheep and lambs, but is now being found equally good in providing pasture for all kinds of stock. Perfectly hardy and of remarkable fattening properties. Easily grown. Pigs, sheep and cattle are all extremely fond of it. A very rank grower and bears heavy manuring and high cultivating. Sow at intervals of several weeks and secure a supply of good feed. Sow in June. Rape should be fed in August, though if a first crop

be cut about four inches from the ground and aftergrowth would be useful later. If soil is



rich and clean sow broadcast, otherwise in drills and cultivate same as corn. Can be sown on wheat stubble, furnishing excellent pasture late in the fall. Lb., 30c, postpaid. Write for prices in quantities, stating amount wanted.

Vetches

SPRING — A pealike plant grown extensively in England and to a considerable extent in Canada for stock feeding, but not as much used in the United States as it should be. Lb., 25c, postpaid.

WINTER-SAND OR HAIRY (*Vicia Villosa*) — This is a very valuable forage plant—and becoming more popular every year. It belongs to the pea family, but the vines are much longer and the foliage more abundant—it improves the soil, being a great nitrogen gatherer. It is advisable to sow oats, barley or rye, etc., with Vetch, which serves as a support for the plants. It succeeds on almost any soil and should not winter kill.



A sowing in August or September covers the ground before winter and prevents washing during the winter and early spring. Can also be sown in April and will be ready to cut by the middle of July, the second growth affording excellent hog pasture during the summer. The yield of forage varies from ten to fifteen tons per acre, equal to three or four tons when cured as dry hay. Lb., 40c, postpaid.

Write for prices on vetches, stating variety and amount wanted.

Buckwheat

JAPANESE—This variety excels all others; yield much heavier; ripens one week to ten days earlier; stands up better and makes better flour. Excellent for bee pasture. Lb., 25c, postpaid.

SILVER HULL—A very good and popular variety. Grain is of light gray color; has a thin husk; matures early and yields heavy. A good milling variety. Lb., 25c, postpaid. Write for prices on buckwheat, stating kind and amount wanted.

Miscellaneous Field Seeds

Write for prices on all varieties of field seeds, stating quantity wanted.

BROOM CORN, IMPROVED EVERGREEN—This is the most popular variety of broom corn to grow for the market, the brush being firm and of good length, and retaining the light green coloring when properly cured. Lb., 25c, postpaid.

EGYPTIAN CORN (also called Jerusalem Corn or Dhoura)—One of the non-saccharine sorghums, requiring the same growing conditions. Seeds well in dry sections. Producing small heads on side shoots up to eight on a stalk, the seed is larger than Kaffir corn; yield is heavy. See our notes on Sugar Cane. Lb., 25c, postpaid.

FETERITA—A wonderful new grain which has attracted much favorable attention in Kansas, Missouri and Oklahoma. It belongs to the Sorghum family. Was introduced from Africa by the United States Department of Agriculture. The advantages claimed for Feterita are its drought-resisting qualities, its heavy yield, its earliness, its stooing propensities and its freedom from insect pests. Feterita has successfully withstood dry weather in Kansas and other states. It branches very freely from the roots, making a single stool. It is from two to three weeks earlier than Kaffir Corn. See remarks under Sugar Cane relative to a thorough trial. Lb., 25c, postpaid.

FLAX SEED (Recleaned for Planting)—Lb., 30c, postpaid.

KAFFIR CORN—Grows 4 to 5 feet high. The stem or stalk bears numerous wide leaves. The stalks are brittle and juicy, not hardening like other varieties of sorghum. It makes excellent fodder, either green or dry, which is highly relished by cattle and all kinds of stock. See our notes on Sugar Cane. Lb., 25c, postpaid.

KALE—(Thousand Headed)—The great demand for this wonderful forage plant proves it to be the most valuable green feed for Pacific Coast dairy and stockmen; endorsed by Agricultural Colleges and Government stations. Postpaid, oz., 10c; 2 oz., 20c; ¼ lb., 30c; ½ lb., 50c; lb., 90c.

LENTILS—Succeed best in dry, sandy soil. A leguminous annual, the seeds of which are valuable for pigeons and are used largely for soups. The leafy stalks make good forage. Lb., 35c, postpaid.

MIL O MAIZE—This is one of sorghums similar to Kaffir Corn. Grows erect, with thick, close-jointed stalk. Height, 4 to 7 feet. Heads are very large, giving a heavy grain yield; is drought resistant, and succeeds on alkali soil. Plant late when ground is warm. See remarks under Sugar Cane relative to a thorough trial. Lb., 25c postpaid.

MISCELLANEOUS FIELD SEEDS—Continued.

SUGAR CANE is supposed to be grown to advantage any place where you can produce a good crop of corn. In sections where it can be grown profitably it has several advantages over fodder corn, as it is said to produce more feed and to be more drouth resistant. It is highly recommended for feed for cattle, sheep and pigs. From our knowledge of this article and our knowledge of the Inland Empire we would recommend the farmers to give this a thorough trial, but do not think it would be wise to go into it extensively until you have demonstrated that it can be grown profitably in your particular location.

EARLY AMBER—This is the earliest, richest and altogether the best sort for northern latitudes. As a fodder plant we believe this excels all other varieties, as it is sweeter, contains more nutriment and is more relished by stock. Lb., 30c, postpaid.

SUNFLOWER (Large Russian)—This has very large single heads borne usually at the top of a single unbranched stalk, and with much more and larger seed than the common sorts. It is used extensively for feeding poultry and is an excellent egg producer. Also largely planted for hiding unsightly places. Single heads often measure from 12 to 20 inches, and the stalks grow to a height of from 10 to 15 feet. During the last two or three years it has been grown very largely for ensilage and the agricultural colleges are recommending it very highly for that purpose. It has been said that farmers are not awake to the value of the Sunflower. Every part of the plant may be used. Paper is manufactured from the stalks and oil from the seed and the residue food for stock. It is estimated that 1000 lbs. of dried stems when burned will yield 60 lbs. of ashes, of which 35% is potash. It is a good forage for bees, as the bloom yields abundantly of honey and pollen.

Plant sunflower for poultry feed.

Plant sunflower for the potash contained in the stalks.

Plant sunflower for ensilage.

Lb., 30c, postpaid.

Write for prices, stating quantity wanted.

GRAIN

The great importance of sowing thoroughly re-cleaned grain is getting to be more and more recognized by the progressive farmer. Besides being thoroughly re-cleaned the seed should be selected with the greatest care, as there are sometimes foreign seeds in the different grains so nearly the size of the grain itself it becomes almost impossible to make a separation. In selecting grain for seed purposes it should be selected because that each grain has been well filled and thoroughly matured, because it has all ripened at the same time, and because of its freeness from all seeds that can not be separated from the grain. In selecting our grain for seed, all of the foregoing points are taken into consideration, then it is given a thorough re-cleaning, and as a result we are able to put on the market a strictly number one article. Kindly write us, asking for prices and state the amount wanted. Stating the amount is very important, as we do not know whether an inquirer wants one hundred pounds or a ton. In case amount is not stated we always quote price on a small amount. You are therefore depriving yourself of our best prices should you want a quantity.

Write for prices on all varieties of grain, stating kind and amount wanted.

Wheat

There is wheat and wheat, and it is penny wise and pound foolish to sow inferior quality. This inferior quality may be because the grains have not been fully developed or on account of impurity, or on account of improper cleaning. We guard against all three, hence our quality is right.

Winter—Jones Fife, Martin Amber, Gold Coin. Spring—Bluestem, Marquis. Early Bart.

Early Marquis possesses three remarkable qualities: Remarkably early, exceedingly productive, unexcelled in milling qualities.

Earliness—It is from one week to ten days earlier than Red Fife. This is important, as this week or ten days may mean the difference between a full crop and a failure or a partial failure.

Productiveness—Marquis Wheat has outyielded all other Spring Wheat, with the exception of Early Bart, grown under the same conditions of soil, cultivation and climate. The increased yield varies from 5 to 10 bushels per acre.

Quality—Marquis Wheat has by numerous milling tests shown a higher percentage of gluten, a better color, greater absorption and heavier weight per bushel of grain.

Appearance—Marquis Wheat is similar in appearance to Red Fife, but the heads, as a rule, are heavier and the straw is shorter, making it less likely to lodge. The kernel is flinty, a little darker in color than Red Fife, being dark red, and more plump than that variety. It is beardless, having smooth, yellow chaff.

EARLY BART—This variety has only been introduced this last two or three years into the Big Bend section, and results obtained have been very satisfactory. It is a white variety, very large grains—larger than the Bluestem—and a very handsome wheat in appearance. Its milling qualities are such that the millers pay the top price for it. It is a very heavy yielder, surpassing all of the old standard varieties, and some claim that it will outyield the famous Marcus wheat. It is bearded and much less liable to shatter than any other variety.

Write for prices, stating quantity wanted.

WHEAT SMUT CONTROL

Geo. L. Zundel, U. S. Department of Agriculture.

The wheat smut problem of the Pacific Northwest is probably different from that in any other part of the world. This is due, at least in part, to the method of farming and climatic conditions.

I. The method of farming as it influences the amount of smut is due to at least three factors:

Large farms.

Predominance of wind in normal years.

The extensive summer fallow system.

II. The climatic factors here are favorable for spore germination. The unusually dry atmosphere at harvest time, together with the winds, make the dissemination of spores very easy compared with more humid areas. The usual temperature at the time when most of the winter wheat is planted is usually most favorable for spore germination.

The United States Department of Agriculture recognizes the great loss of wheat due to the various smuts. For that reason a nation-wide smut control campaign has been carried on throughout the United States.

The campaign has consisted of four parts:

Educational.

Survey.

Smut trap work.

Suction fan work on threshing machines.

EDUCATIONAL—During the fall of 1917 and the spring of 1918 educational meetings were held throughout the state. The school houses were used. Here illustrated talks on cereal disease control were held and a general talk with the farmers followed.

SURVEY WORK—The survey work consisted of visiting fields and making actual counts of the percentage of smut found. At the same time as much data as possible were collected on the date of seeding, method of treating and other cultural methods.

WHEAT SMUT CONTROL—Continued.

SMUT TRAP WORK IN THE STATE—It has previously been found that wind dissemination of the smut spores is one of the many reasons why we have so much smut in this part of the country.

This year, in connection with the smut survey work, there were 23 smut traps scattered over the state.

Leaf washings were also made at the Washington Experiment Station and microscopic examinations showed over 145,272 spores on apple leaves from the college orchard to over 8,882 spores per leaf on Spiraea leaves on top of Kamiak Butte.

It will be seen then that the smut spore on the kernel is not the only source of infection and that is why seed treatment in the Northwest does not give the same results as in other sections.

THRESHING MACHINE SUCTION FANS—Up to the present time there has been no practical way of combating the effect of the smut shower except by cultural practices as outlined in Washington Agricultural Experiment Station Bulletin No. 126, a survey of which follows:

Depth of planting.

Time of planting.

Temperature and moisture at time of germination.

Replanting summer fallow.

Since the smut shower originates at the time of threshing and since smut explosions occur in this section the proposition has been put up to the thresher manufacturing companies by the United States Department of Agriculture that something must be done in order to avert the big loss.

During the fall of 1917 there were threshing machines located in eastern Washington and northern Idaho equipped with suction fans. The operation of these fans were observed as a means of—

Preventing or lessening the danger of explosions.

Cleaning the grain of smut and other foreign material.

Reducing the intensity of smut showers.

To summarize them—

1. The source of infection of smut in the Pacific Northwest is two-fold:

Smut spores on the kernel.

Soil infection from the wind-blown smut and from smut heads left on the field.

2. Seed treatment is effective for the first source of infection, using one pound of bluestone, one pound of common salt to five gallons of water. Dip ten minutes, then drain and immerse in lime water as follows:

One pound of quick lime to ten gallons of water for five minutes.

The use of lime lessens the injury of the bluestone to the seed.

For spring wheat use—

One pint of formaldehyde to forty gallons of water for ten minutes.

3. The soil infections must be combatted by cultural practices as given in Washington Agricultural Experiment Station Bulletin 126. The use of bluestone gives some protection against the soil infection.

4. Be very accurate in seed treatment. It costs very little to do your best. **DON'T GUESS** when preparing your seed for treatment.

Oats

We handle the varieties mostly grown. Our quality will be as good as careful selection and recleaning can make them.

Barley

BEARDLESS—Two strong features distinguish the Beardless Barley above all other barleys; first, its great yielding qualities; second, its freedom from the troublesome beard. It is on this account not only much more agreeable to handle in threshing than other barleys, but it is much safer and better to feed to live-stock. As a fattening agent for swine Beardless Barley is particularly valuable. Owing to our past dry summer this is almost a complete failure and it is doubtful if we can secure enough of this for our trade. Price, 100 lbs., \$6.00.

WHITE HULLESS—A grand barley for stock feeding. Grain plump, heavy, and when threshed is hullless like wheat. A heavy cropper. When grown and cut for hay it produces a magnificent fodder, which is very rich and almost equal to a grain feed. Much relished by horses and stock of all kinds. An excellent hog feed.

Its Valuable Properties

It's hullless; it's beardless; it's very early.

It weighs over 60 pounds to the measured bushel.

It yields well on poor land.

It yields enormously on good land.

Stock very limited. Price, 100 lbs., \$6.50.

WINTER—There has been a very great demand in the past few years for a winter variety. This is sown in fall and possesses the same advantages over the spring varieties that fall-sown wheat has over spring-sown wheat. This variety is bearded. Write for prices, stating quantity wanted. Price, 100 lbs., \$6.00.

Rye

Rye cross-breeds like corn. In this respect it differs from wheat, which will not cross fertilizer; if two or more kinds are grown together for years. To keep a pure rye pure, it should be grown away from other rye, like you must grow yellow corn distant from white corn.

Rye is a valuable and very hardy crop, producing green fodder either in the early spring or late fall. It matures before other crops come in and can be sown on soil too poor for other cereals. Rye does not exhaust the soil as do other grains and can be cultivated longer on the same land than any other crop on the farm.

SPRING RYE—Spring Rye is an excellent catch crop where winter grain has been killed out, or for sowing where a full crop has not been planted. If desired it can be turned under and made to answer a good purpose in adding to the fertility of the soil. Spring Rye has been almost impossible to secure the past few years and is also scarce this season again. We have secured a limited supply, and would therefore suggest the advisability of placing your order early. Price, 100 lbs., \$5.50.

WINTER RYE—The value of Winter Rye is becoming more apparent every year. It is much harder than wheat and can be grown on a greater variety of soils, even on soil that would not produce a fair crop of wheat. It will thrive even in dry seasons and on light sandy loam. It is grown not only for grain, but for fodder and soiling purposes. When sown in the autumn it starts up very early in the spring and is often plowed under, as it adds greatly to the fertility of the soil. Price \$5.50 per 100 lbs.

Rosen Rye

Plant it to get a 50 per cent increased yield.

Rosen rye was selected and bred from a Russian rye, the selection beginning in 1909 in this country by a Russian by the name of Rosen. Rosen rye outyields common rye from 25 to 50 per cent.

Rosen rye is a stiff-strawed, large headed variety which, ordinarily has four full rows of grain on over 99 per cent of its heads. It seldom winter kills and is rapidly taking the place of wheat on lighter soils and under adverse climatic conditions.

Now that Rosen rye has proven and established its superiority over the rye as commonly grown, and in practically all rye-producing sections, it should, at once, supplant the common rye for seeding. Price \$6.50.

Price on rye is merely an estimate and is not guaranteed. Write for prices, stating amount wanted, or we will fill all orders at price prevailing on date of shipment, sending rye for the amount of remittance received.

Kill the Smut in Your Grain

If there is smut in your grain destroy it by using bluestone or formaldehyde. This trouble is becoming very prevalent, and must be destroyed if wheat is to keep up its high grade of milling qualities.

Fertilizers

Most soils in the Inland Empire are yet fairly new. Their native or virgin fertility is not yet exhausted. There are, however, many different types of soils, some of which do not naturally contain very large supplies of the different elements of plant food needed by crops. Such soils are likely soon to "run out" and need application of fertilizers carrying the particular elements in which they are deficient. These can best be restored to or built up in fertility by the use of fertilizers to stimulate increased growth until the soils can be properly brought back into good condition. Write for prices on all fertilizers, stating amount wanted.

SUPER-PHOSPHATE—This is what is known as Acid Phosphate, being Phosphate rock treated with acid to make the Phosphate Acid available. The Phosphoric Acid in this is more quickly available than it is in bone meal and for that reason is sometimes more useful. It contains 20 per cent Phosphoric Acid, and is generally used at the rate of 500 lbs. to 1,000 lbs. per acre.

NITRATE OF SODA—Contains 13 per cent Nitrate, in quickly available form. It is used for forcing crops like lettuce, celery, etc., as it makes a large growth of leaves and tops.

Apply the Nitrate of Soda by broadcasting it evenly over the entire surface of the vegetable field you are fertilizing, at the rate of 200 pounds per acre, before seeding, or planting, or transplanting.

KAINIT—It contains 12.4 actual Potash and contains Potash both in the forms of Sulphate and Muriate. It contains Salts of Magnesia and also common Salt. Kainit can be used upon the crops for which Muriate of Potash is recommended.

SULPHATE OF POTASH—Contains 50 per cent Available Potash. This is similar to Muriate of Potash but is free from chlorides, and can be used to advantage in some instances where the muriate can not be used. Use about one sack to the acre.

MURIATE OF POTASH—Contains a larger percentage of Potash than other commercial forms, and is, therefore, cheaper where it can be safely used, but owing to the Chloride it contains, is not best for some crops unless applied a few months previous to planting, which allows the Chloride to leach out while all of the Potash is retained until taken up by the plants.

LAND PLASTER OR GYPSUM—Made from pure Gypsum, free from clay or other foreign matter. This is especially valuable for clover and grass crops. 100 lbs., \$1.00; 500 lbs., \$4.50; ½ ton, \$8.50; ton \$16.00.

ANIMAL FERTILIZERS—Most of them contain both Nitrogen and Phosphoric Acid, but do not contain Potash, so that to make them complete it is necessary to add the correct proportion of chemical fertilizers. All the different ingredients are found in our Clover Leaf Fertilizer.

BONE MEAL—This contains 3 per cent Nitrogen and 22 per cent Phosphoric Acid. It is slower in action, but will not dissolve and waste in the soil, as the plant food contained in the Bone Meal is released only as fast as the roots of the plants take it up. 100 lbs., \$4.00; 500 lbs., \$19.00; ½ ton, \$36.50; ton, \$70.00.

TANKAGE—This is a slaughter-house product and has very little odor. The analysis shows 5 to 7 per cent Nitrogen and 12 to 15 per cent Phosphoric Acid. 100 lbs., \$4.75; 500 lbs., \$22.75; ½ ton, \$43.50; ton, \$85.00.

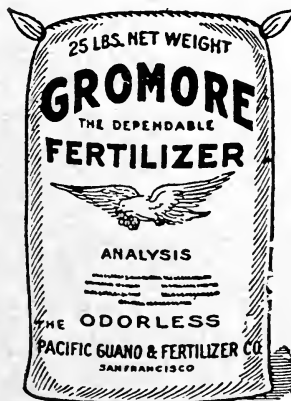
BLOOD MEAL—A quick-acting fertilizer analyzing very high in effective Nitrogen. This also carries some Phosphorous; is a strong fertilizer, a little going a long way. 100 lbs., \$8.50; 500 lbs., \$40.00; ½ ton, \$77.50; ton, \$150.00.

SHEEP MANURE—This is the best and strongest in fertilizing and enriching elements, as it contains Nitrogen, Phosphoric Acid, Ammonia and Potash in liberal proportions. Produces immediate and lasting effect. Promotes steady and rapid growth.

FOR LAWNS—Pulverized Sheep Manure is the best possible fertilizer for the lawn. It should be applied by sprinkling lightly over the grass, much as one would sow grass seed. It requires no raking in. The color is not conspicuous and there is no objectionable odor. tizer, a little going a long way. 100 lbs., \$2.00; 500 lbs., \$9.50; ½ ton, \$18.50; ton, \$35.00.

GROMORE

Odorless, Clean, Dependable.



Analysis:

Nitrogen	6 per cent.
Phosphoric acid	9 to 10 per cent.
Potash	5 per cent.

FERTILIZER—Continued.

A TON OF MANURE

A ton of the best cared for stable manure contains:

Nitrogen	12 lbs. *
Phosphoric Acid	10 lbs.
Potash	5 lbs.

Also foul weed seeds, odor, bulkiness, is expensive and disagreeable to handle, etc.

Years of experimenting, demonstrating and getting at FACTS have shown that the public wants FULL and EXPLICIT information and NOT generalities.

Just remember there are twelve elements that go to make our earth and all thereon,

Usually all elements are found in sufficient quantities in the earth, with exception of the three most essential properties, viz: Nitrogen, Phosphoric Acid and Potash.

Gromore contains all of the 12 elements and is proportioned so as to come in combination with one another and the elements in the earth, unlocking and releasing the dormant elements

from the earth so that the plant finds its food readily available, is one of the many reasons why Gromore gives such splendid results.

25-lb. bag, \$2.75; 2-lb. package, 45c; add postage. Booklet giving full directions furnished upon request.

As it is impossible for us to quote with any degree of certainty on Nitrate of Soda, Phosphates and Potash, we are not making any quotations, therefore ask that you write for prices, stating amount wanted.

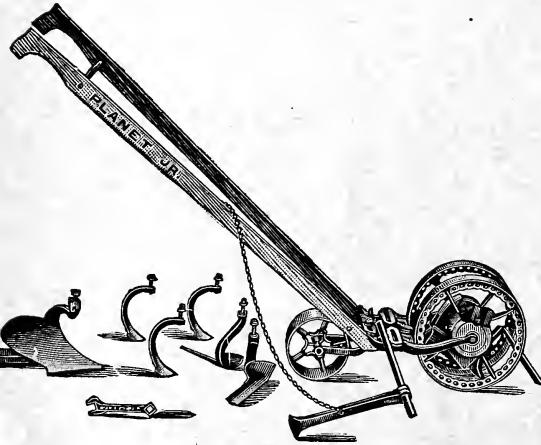
This also applies to all the fertilizers we have quoted, as the scarcity of the imported chemical fertilizers will affect the price of all. Sold only at price prevailing at time of shipment.

We have the following books treating on the different chemical fertilizers, mode and manner of using, crops, etc., which will be sent free of charge. Make your selection and send 5 cents to cover postage: Fall Fertilizers, Farmers' Guide, Farmers' Note Book, Plant Food, Potash Pays, Potash in Agriculture, Principles of Profitable Farming, Strawberry Culture, Sugar Beet, Truck Farming.

Farm and Garden Tools

Space will not permit our showing and describing all of the "Planet Jr." Tools, but we will send a full illustrated catalogue free for the asking to any one desiring it, and we can supply promptly anything ordered. "Planet Jr." goods are standard machines, the best on the market. In sending your orders to us you can rely on getting bottom prices.

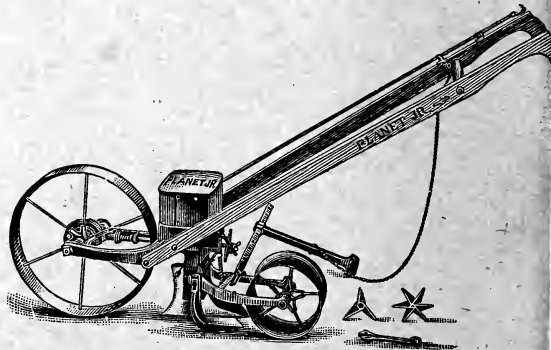
**No. 1 Planet Jr. Combined Drill and
Wheel Hoe. Price, complete.....\$16.50**



This tool is known and used the world over. The hopper holds three pints, and sows in an even, regular stream, whether there is much or little seed in it. The machine is extremely simple, has no agitators, belts or gearing, and will not injure the seed. From a drill it is changed to its other uses by removing two bolts, when hoes, cultivator teeth or plows can be quickly attached. It is a practical every-day time and labor saver, a grand remedy for the backache, and the best low-priced combined machine on the market.

**No. 4 Planet Jr. Combined Hill and
Drill Seeder, Wheel Hoe, Cul-
tivator and Plow.**

Price, Complete\$20.25
Seeder Only 16.25

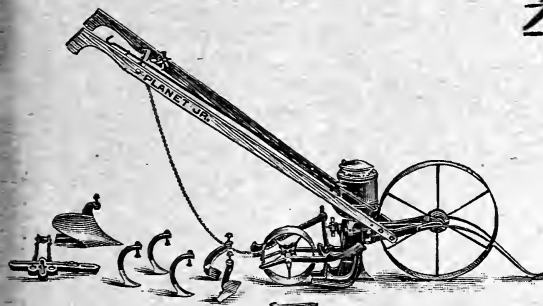


This is the most popular combined tool made. It combines in a single implement a first-class, hill-dropping seeder, a single wheel hoe or weed-er, a cultivator and a plow. The hopper holds two quarts of seed, which can be sown in continuous rows, or dropped in hills, at 4, 6, 8, 12 or 24 inches apart.

The drill is detached and the tool frame substituted by removing but one bolt. It then becomes a single wheel hoe. It is useful almost every day of the season, at every stage of the garden work. With this one implement the small farmer can do practically all the work in his small crops.

No. 6 Planet Jr. Combined Hill and Drill Seeder, Wheel Hoe, Cultivator and Plow.

Price, Complete\$29.00
 Seeder Only\$25.00



The steel carrying wheel is 16½ inches high, with forged steel spokes, making an easy running tool. Handles adjustable. The feed and cut-off are very accurate. The opening plow is of a new shape, leaving the seed in a narrower row than any plow heretofore made. The roller is large and wide, leaving the seed in excellent condition for germination. This drill sows in drills, drops in hills 4, 6, 8, 12 or 24 inches apart, covers, rolls down and marks the next row, all in one passage. As a wheel hoe the frame is similar to our No. 17 Single Wheel Hoe and equipped with the same tools.

No. 25 Planet Jr. Combined Hill and Drill Seeder, Double Wheel Hoe, Cultivator and Plow

Price, \$23.75.



This combined machine is intended for gardeners who have a large enough acreage in crops for a double wheel hoe to be used to good advantage, and prefer not to buy separate machines.

As a drill it is almost identical with the Planet Jr. No. 4 Drill, and is thoroughly substantial and accurate in sowing all kinds of garden seeds in hills or drills.

As a wheel hoe it is identical with the Planet Jr. No. 12 Double Wheel Hoe, the very best machine on the market. The change from drill to wheel hoe takes but a moment and the whole combination is one we can heartily recommend and guarantee satisfactory.

No. 11 Double Wheel Hoe

Price, \$16.75



This is the greatest cultivating tool in the world for the onion and sugar beet grower, and also for every grower of garden crops.

They can do more work and do it better and easier than can possibly be done in any other way. One pair 6-inch hoes, one pair 4-inch hoes, two pairs hollow steel cultivator teeth, one pair plows, two 3-tooth rakes, two 5-tooth rakes, and two leaf lifters.

No. 12 Planet Jr Double and Single Wheel Hoe.

Price, \$13.25



No. 12 runs either astride or between the rows; kills all the weeds and leaves the earth in fine shape. Then, too, it's easy to work.

It has a pair of 6-inch hoes, a pair of plows for opening or covering, and a set of four all-steel cultivator teeth. The tools shown are what gardeners use most and others can be added as wanted.

No. 17 Planet Jr. Single Wheel Hoe

Price, \$9.75.

15 Inch Steel Wheel, Steel Frames.



No. 17 is suited to all kinds of garden cultivation and all garden crops. You can do more and better hoeing with it in one day than you can do in three days with a hand hoe. It has a pair of 6-inch hoes, a plow and a set of cultivator teeth, an outfit sufficient for most garden work.

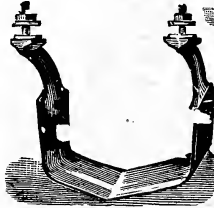
No. 19 Planet Jr Wheel Hoe, Cultivator and Plow. Price, \$7.25.
15 Inch Steel Wheel.



No. 19—This attractive implement is especially designed for the farmer's garden work, though it offers to every one with either field or garden a cheap and effective tool for wheel-hoe operations. The great variety and fine shape and quality of the tools makes the implement light running and effective. It is strong, well made, and quickly adjusted. The height of the handles can be changed to suit man or woman, boy or girl.

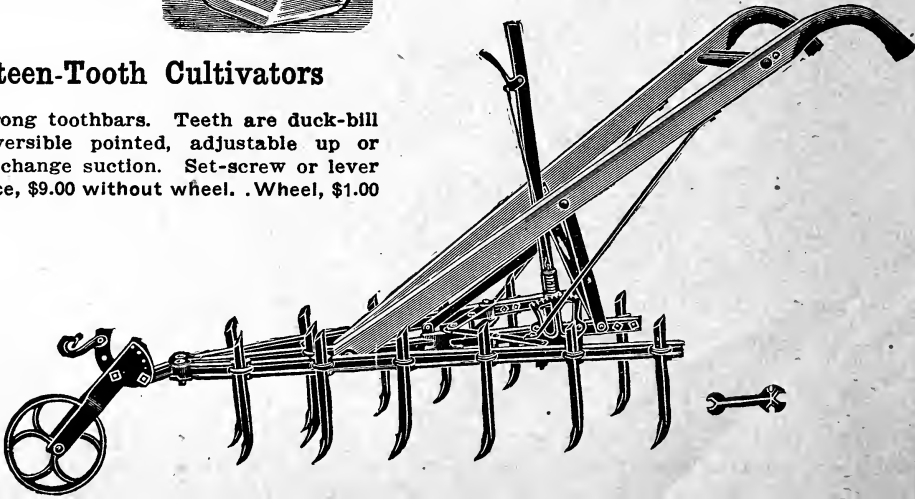
Onion Set Harvester
Price, \$1.25. Weight 1½lbs.

A useful attachment for our combined drills and all our wheel hoes. Eight-inch size for onions and onion sets. It leaves the crop in the best condition for easy handling.

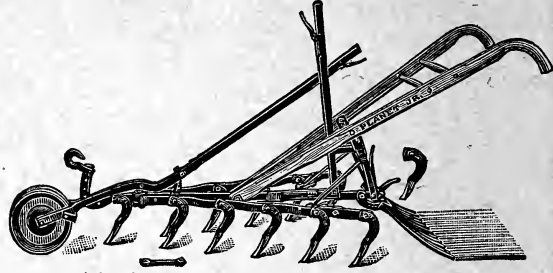


Fourteen-Tooth Cultivators

Special strong toothbars. Teeth are duck-bill shape — reversible pointed, adjustable up or down, or to change suction. Set-screw or lever spread. Price, \$9.00 without wheel. .Wheel, \$1.00

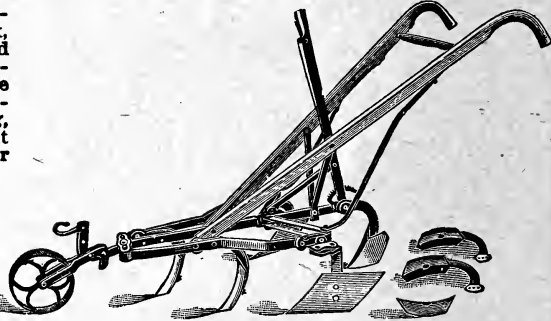


No. 90 Planet Jr. 12-Tooth Harrow, Cultivator and Pulverizer



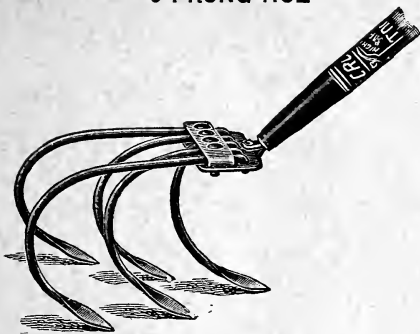
With the 12-tooth harrow here shown you go as deep or shallow as you like, come up close to row without injuring plants, cut out all the weeds, stir the soil and mellow and fine it as with a garden rake. You widen and narrow as you please between 12 and 32 inches. An invaluable tool in the market garden, truck and strawberry patches. Has new steel wheel which prevents clogging. Its 12 chisel-shaped teeth cut out all weeds, stir and mellow the soil and leave the ground in the finest condition without throwing dirt on plants. Price, without wheel, pulverizer or sweep, \$14.50; wheel, \$3.50; pulverizer, \$4.00; sweep, \$2.25.

No. 2 5-Tooth Cultivator



For garden, truck patch, orchard or field work. This tool is finely built throughout. Frames are high carbon steel, and are made extra long to avoid clogging in narrow rows. Standards high, reducing draft, and adjustable to change pitch of shovels. Price, without hoes or wheel, \$10.00; hoes, 75c; wheel, 75c.

5 PRONG HOE

**5-Prong Cultivator Hoes**

Two prongs are changeable for rows of any width. Loosening nuts, releases the prong. Works between rows or center prong can be removed and rows straddled. A perfect weeder and pulverizer, giving level cultivation. Removing center prong and reversing other four makes it a Potato Digger. Head made entirely of steel. Light, well made, serviceable. Blue finish, 4 1-3 foot handle. Price, \$1.50.

Adjustable Garden Cultivator

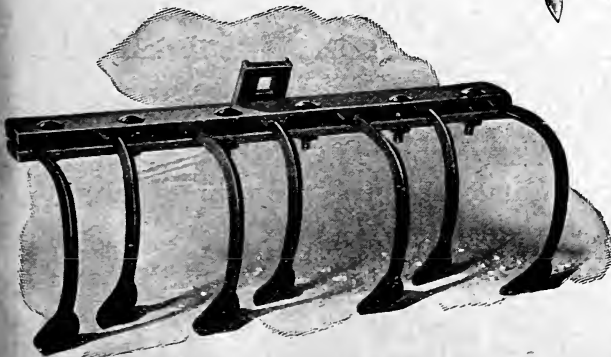
A patented groove slide, secured by handy thumb screws, allows the working width of the Cultivator to be varied from 7 to 18 inches. When the plants are young, the middle tooth can be removed by the simple loosening of a thumb screw, allowing the plants to be straddled and two rows worked at once.

When spread out to its full width it can be used as an ordinary rake. The teeth are so arranged that no two teeth at any width adjustment are in line with each other.

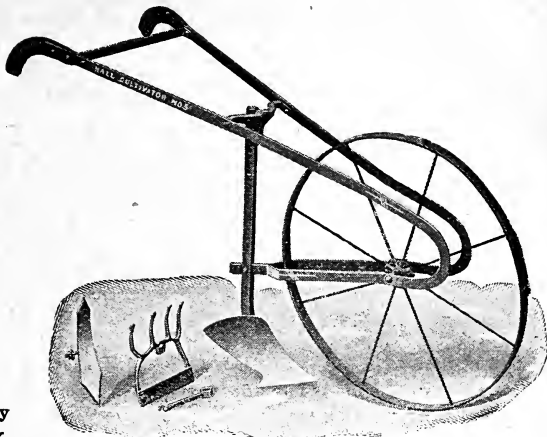
It will pulverize and weed your garden thoroughly and you will enjoy working with it. Since it serves as both a rake and a Cultivator it can be put to many uses about the yard or garden.

Every part is of the best material, the teeth are drop-forged steel, set in an indestructible plate. The handle is perfectly smooth, of straight-grained, tough white-ash.

Weight of complete Cultivator, 3½ lbs. Length of handle is 4½ feet. Price, \$1.50.



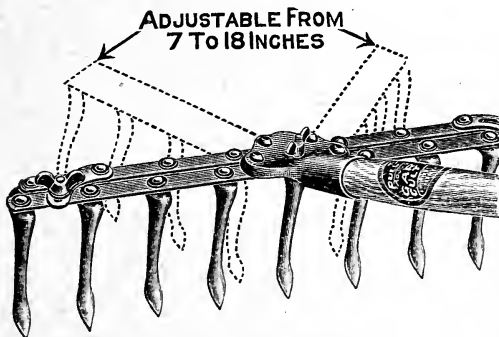
CULTIVATOR ATTACHMENTS

**Garden Plow**

No where else will you find a better made, better finished plow for the price. A strictly high grade plow from handle to tool.

The swing frame feature gives it a hang and balance, which makes it the easiest running plow you ever saw. Instead of pushing against the axle, the curved handle applies the power ahead of axles, making a more steady and even draft.

Handles easily adjusted for easy working height for any person. Just loosen one thumb screw. Adjustable draft for light or deep cultivation. Extra heavy, 24-inch wheel, oval spokes, ¾-inch. Bushed to prevent binding. Best hardwood handles, well-finished. Price, \$6.75.



GARDEN CULTIVATOR

Cultivator Attachments

Here's a seven-prong cultivator attachment. Every man who owns a garden plow should have one. Prongs are made of best forged blades, and each prong can readily be removed. Attachable to any standard plow on the market. Permits a scope of cultivation impossible with stationary prong cultivators. Weight 3 lbs. Price \$1.25. Add postage.

Garden Trowel



Good steel trowel. Price, 15c, 30c, 60c; post-paid, 20c, 35c, 65c.



Solid socket, polished blades, bronze finish; $4\frac{1}{8}$ ft. handles. Each, 75c.



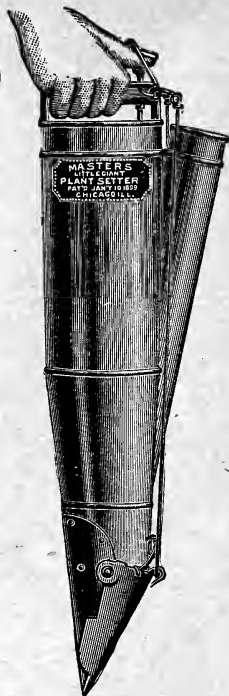
The flanged head is electrically welded to the bows. Curved teeth, capped ferrule, bronze finish: XX handles, 14 teeth. Each, \$1.25.



Lang's Weeder

It is very conveniently used, and fits the hand so comfortably that the fingers are entirely free for use wherever necessary. Price, 25c; postpaid, 30c.

Masters' Rapid Plant Setter

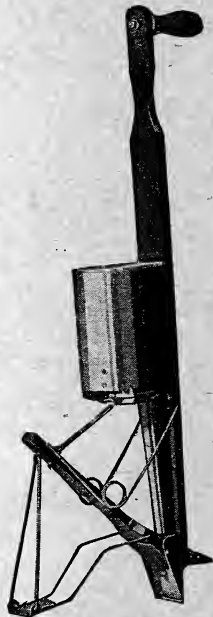


The only successful hand transplanter on the market for transplanting Cabbage, Tomatoes, Sweet Potatoes, Egg Plant, Cauliflower, Peppers, Strawberries, and all similar plants.

Each plant is SET, WATERED and COVERED in one operation without any stooping and no lame backs. A man simply walks along in an upright, comfortable position and will set from 8,000 to 15,000 plants per day and never have to bend his back. This is three times as fast as hand-setting and very much easier. It does perfect work. The roots of each plant are put into the ground in a natural position and firmly set by the absorption of the water. Price \$6.00 each, prepaid by parcel post.

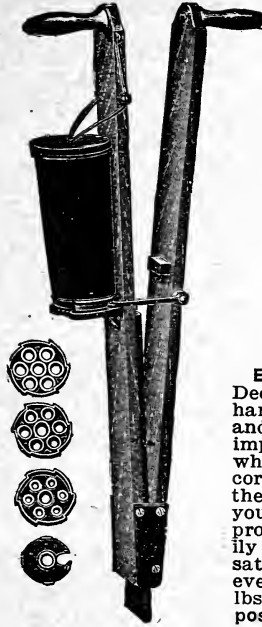
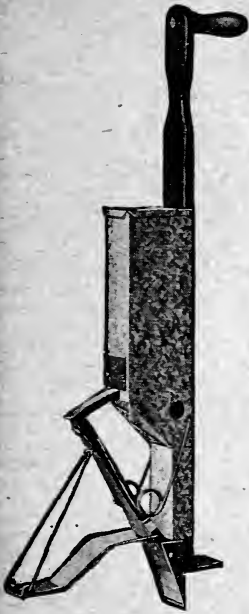
Corn Planters

ACME ROTARY AUTOMATIC — Pressed steel hopper. Hopper cup conveyor, depth gauge, dump, foot and cut-off box. Cast frame (or basket). Disc or seed plates are adjustable by means of a thumb nut to suit various sizes of kernels. Used in one hand like a walking stick. Disc is set for correct number of kernels by loosening thumb nut, moving star until pockets are of right size, then tightening thumb nut again. Plunge planter into the ground, work forward to trip seed, and withdraw. Double coil spring automatically rotates disc and closes jaws, thus filling same for next hill. Weight, 6 lbs. Price \$2.75; add postage.



Mr. Paul Smith of R. F. D. No. 2, Spokane, won the three Cash Prizes offered in our 1919 Catalogue for the three largest Mammoth Long Red Mangel Wurzel. Weight 60 Lbs. and only three-fourths grown.

ACME SEGMENT—Automatic slide type. Segmental pressed steel slide, adjustable for number of kernels, running in segmental steel track. Chinese bristle brush cut-off. Double soil steel spring, adjustable depth gauge, fixed dump lever, galvanized hopper with hinged cover, galvanized seed spout, hardwood sides, handsomely painted, pressed steel jaws, smooth handle, two coats of varnish. Can be used also for planting beans. Pumpkin seeds may also be planted by operator dropping seed into hole in spout. A popular planter that has been well introduced and has given universally good satisfaction. There is not one piece of casting in this planter. There is no wear, for the segment slides in a steel guide. Weight, 5 lbs. Price, \$2.00; add postage.

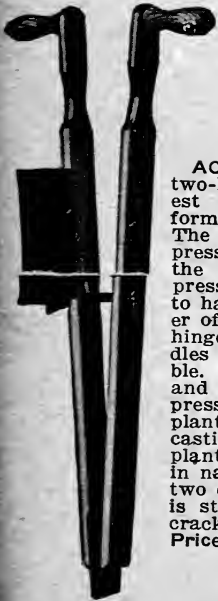


See Our
Special
Offers on
Pages
1, 2 and 3

ECLIPSE ROTARY —Decidedly the best two-hand corn planter made and a very desirable implement for those who have a quantity of corn to plant. It puts the corn exactly where you want it, and at a proper depth. It is easily worked and a most satisfactory tool in every way. Weight, 9 lbs. Price, \$3.00; add postage.

POTATO PLANTERS

ACME OR TRIUMPH—The two-hand, slide type, is the oldest and most widely known form of Hand Corn Planters. The segmental slide is of pressed steel, adjustable to vary the drop. The jaws are of pressed steel securely riveted to hardwood sides, and the cover of hopper is also steel with hinges to fit over the top. Handles are smooth and comfortable. The hopper, hopper bottom and conveyor tube are of pressed steel, thus making the planter complete, without a casting in its construction. The planter is handsomely finished in natural wood color dipped in two coats of durable varnish. It is strong, durable and will not crack the corn. Weight, 5 lbs. Price, \$1.50; add postage.



ACME SELF-LOCKING TUBULAR—The jaws are formed from bright steel dipped in a special preparation to prevent rust and have a simple and novel arrangement to hold them tightly locked or closed until thrust into the ground, when they may be freely opened. This lock is secured by the front jaw slipping down $\frac{1}{2}$ of an inch, which causes a pair of studs on its upper corners to slip over corresponding shoulders in the rear jaw. When thrust into the soil to deposit the seed, the front jaw is pushed up, releasing the lock. Galvanized iron taper conveying tube. Weight 6 lbs. Price, \$2.00; add postage.

Examine the merits of our Giant Golden Bantam Sweet Corn, Idaho grown. This is the best sweet corn on the market.



PINGREE OR ACME—Is practically the same as the Acme Tubular without the tube down the handle. You lift the planter up and drop the potato in the lower part. It is light and a very satisfactory planter. Weight, 5 lbs. Price, \$1.50; add postage.

Corn Knives



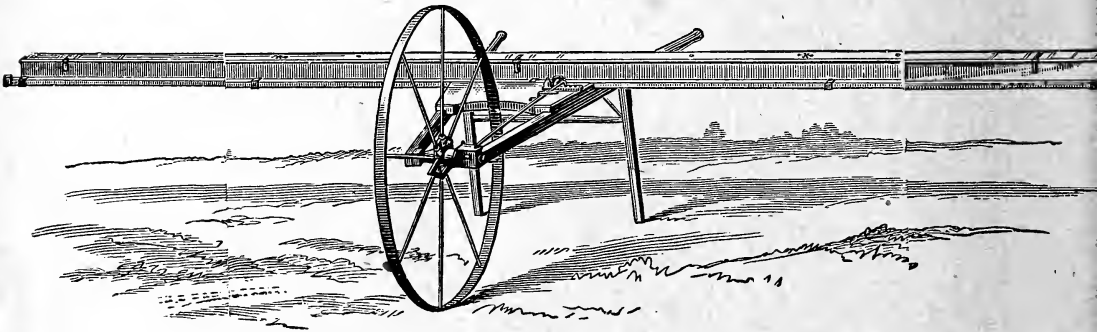
No. 6 SPECIAL STEEL—Length of blade, 15 inches. Width at end, 3 inches. Length over all, 21½ inches. Number of rivets, 3. Weight, 2 lbs. Price, 75c; add postage.



ACME WIRE TUBULAR—Bright steel jaws, dipped in a preparation to prevent rust. Is of the lock-jaw type the same as the Acme Self-Locking and consequently there are no springs required for its operation—a very commendable feature, and one highly appreciated by the trade. Strong hardwood handle, set into malleable iron socket securely riveted to back jaw. Foot plates provided on socket. Adjustable dump or depth gauge. Wire mesh conveying tube by which each seed can be seen when passing through the tube, thus assuring the operator that each seed is planted. No rivet heads on inside of jaws to bruise eyes on seed. Weight, 6 lbs. Price, \$2.00; add postage.

A very convenient and excellent tool. Mailing weight, 2 lbs. Price, 75c; add postage.

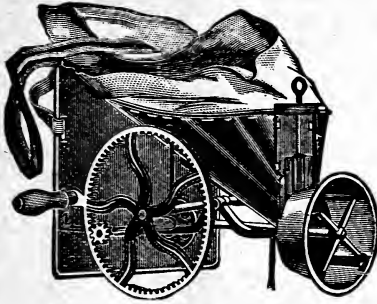
GRASS SEEDERS



WHEELBARROW—They run easily, and sow evenly in windy weather. The quantity of seed sown is accurately governed by the wheel, which moves correspondingly slow or fast as the machine runs over the ground. This seeder is constructed on up-to-date principles. It has a strong steel wheel, 32 inches in diameter, with an inch and a quarter by one-quarter inch steel tire, is operated by a device that engages the wheel close to the hub, having a lever and working correspondingly easy. It is instantly thrown out of gear, and the amount of seed sown is quickly governed by changing the pin in the index plate as thereon indicated. This seeder does not injure or bunch the seed, but evenly distributes it in the full length of the hopper, 14-ft. spread. Price, \$11.50.

GRASS SEEDERS—Continued.

CAHOON
—The standard broadcast seeder and one of the best made. Sows all kinds of grain, Clover, Timothy, and heavy seeds. Very simple in its operation and sows 4 to 6 acres an hour at a usual walking gait.



Cahoon Broadcast Seeder

Distributes seeds uniformly in one-fifth the time required by hand. Weight, 8 lbs. Price, \$5.00; add postage.



THE SOWER THAT SCATTERS EVENLY.

IMPROVED CYCLONE

Has a Slope Feed Board—This feature is found in no other Sower, as the Improved "Cyclone" is the only Hand Seed Sower that is framed together with a slope feed board. This is a marked improvement over the single-bot-

tom-board type, as it insures a filled hopper always, until seed is exhausted.

Triple Gears—are all adjustable.

Automatic Feed Shut-off—starts or stops flow of seed instantly.

The Improved "Cyclone" is guaranteed to sow perfectly all seed that can be sown broadcast, such as clover, timothy, millet, flax, wheat, oats, alfalfa, etc., etc. Weight, 5 lbs. Price, \$2.00; add postage.

Pumps

BEAN LITTLE GIANT NO. 70

Spray and Whitewash Pump



"Little Giant" is recognized as the best and most powerful barrel sprayer on the market, giving universal satisfaction for small orchards of a few acres.

The pump has a large steel air chamber, making it easy for the operator to keep up a high pressure, and continue spraying for some time after pump has stopped.

It has no stuffing boxes, glands or outside packings, thereby insuring easy running.

Rotary agitator that is positive, insuring thorough agitation for such heavy solutions as arsenate of lead, Bordeaux, whitewash and cold water paint.

No. 70—Pump only, with "Rapid Mixer," top plate, anchor, hose nipple and thumb bolts ready to fasten to barrel. Price, \$28.50.

For price of Rods, Cut-Offs, Nozzle and Hose, see pages 79-80.

BEAN "PIPPIN" NO. 50



The Bean Pippin, No. 50, is especially adapted for use on side hills and very rough ground, because the air chamber is entirely contained within the barrel, so it is almost impossible to tip over.

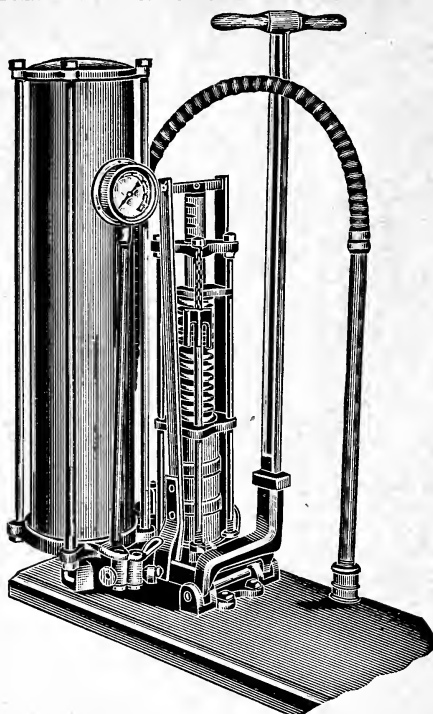
It also meets the demand for a low-priced, high-class sprayer for small orchards, vineyards or whitewashing jobs.

It has an anchor in the bottom of the barrel on which the point of the cylinder rests, which holds it rigidly in position. It is made to fasten in a barrel without a head, so is extremely easy to mount.

No. 50—Pump only, with agitator complete, anchor, hose nipple and bolts ready to fasten to barrel. Price \$17.50.

For price of Rods, Cut-Offs, Nozzle and Hose see pages 79-80.

THE MAGIC SPRAY PUMP



Magic pumps represent a principle in construction, found in no other spray pumps.

This construction means maintaining the high pressure that is absolutely essential with only two-thirds of the labor necessary with any other pump.

In addition to the overwhelming superiority the Magic and other Bean Spray Pumps are the only ones which—

Have non-corrosive porcelain cylinders, 3-inch;

Have no stuffing box or outside packing.

Have 5 1-16 inch bell metal ball valves with reversible and removable seats;

No threads inside the valve;

Have a powerful spring, which is so used as to save one-third the labor;

Weight, 200 pounds.

PUMP ONLY—With gauge, double cut-off, suction hose and strainer, \$73.75. For price of rods, cut-offs, nozzles and hose see pages 79-80.

SPRAY GUNS

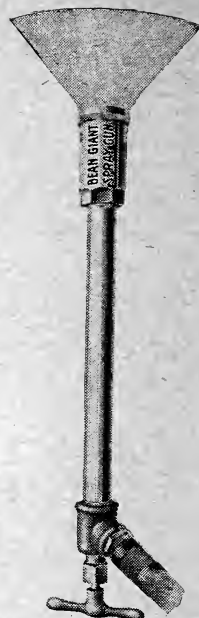
PILOT SPRAY ROD—The Pilot Spray Rod is a highly improved spraying gun, suitable for use either with power sprayers or the larger size hand outfits. Two or three of these can be used, with a power sprayer, and give excellent results. The operation of the Pilot Rod is identical to that of the Bean Giant and Bean Pony Spray Guns, excepting that it has a smaller capacity and a different system of controlling the nozzle, and is driven much further than with the ordinary bamboo extension rods and nozzle. The Pilot Spray Rod throws a heavy penetrating mist or a long-distance spray. This is an excellent spray gun for the small or medium size orchard.

Price, \$6.00. Weight, 5 lbs. Add postage.

THE MASTER PILOT SPRAY GUN—Eliminates entirely the use of spray rods. One man can spray as rapidly and more efficiently with this gun than two or three men with ordinary spray rods and nozzles. Half-inch hose is too small and reduces the pressure considerably.



Pilot Spray Rod



Master Pilot Spray Gun

From Full Fog Through Long Distance Spray and Back to Cut-off—The master Pilot Spray Gun throws a full penetrating spray. Its operation is very simple. One-quarter right turn of the handle produces full fog spray, and complete half turn produces long-distance spray. Cut-off is accomplished by stopping the outlet hole, without ground plugs or expensive replacements and is instantly operated by complete half turn to the left. The operator can stand in one place and spray from bottom to the top of the trees or vice versa, simply by turning the handle of the gun, thus regulating the force of the spray. The Master Pilot Spray Gun throws a spray to the tops of the tallest trees. It is only three feet long and is easily carried anywhere. Simple—durable—efficient—easy to clean.

Capacity, 8 gallons per minute. Price, \$11.50. Weight, 6 lbs. Add postage.

UTILITY SPRAY OUTFITS

Nos. 40 and 40A

This Outfit Is Light, Compact, Easy to Operate.



Very useful for painting, whitewashing, and spraying warehouses, factories, barns, trees and greenhouses.

SPRAY OUTFITS—Continued.

TANK is larger than most similar outfits, made of heavy galvanized iron, re-inforced at top and bottom with heavy band iron rings. Capacity, 18 gallons.

PUMP—The cylinder is made of heavy brass tubing and has brass plungers packed with specially treated cotton wick to resist action of chemicals; can be tightened or expanded without removing from cylinder. Valves and all parts that come in contact with liquids are brass. Iron handle of good length makes pumping easy; 175 pounds pressure is easily maintained. Mechanical agitator keeps liquids thoroughly mixed. A fine strainer at suction end prevents sediment getting into working parts of pump.

FRAME substantially built of steel, well braced and balanced.

Price, \$25.00.



40A

No. 40A—Same in construction as No. 40, but equipped with an air pressure tank mounted on pump casting. This makes a one-man outfit. By obtaining 250 pounds pressure considerable spraying can be done without pumping.

Price, \$35.00.

The Success Bucket Spray Pump

All Brass Working Parts, with Indestructible Bronze Valves, Malleable Iron Foot-Rest.

This outfit is a most excellent one for ordinary use in gardens, vineyards and orchards; for washing windows and buggies and for the application of white-wash. The pump has a large air chamber and is double acting, throwing a continuous stream either solid or in fine spray. It is provided with Bordeaux nozzle and four feet of discharge hose. Weight, 8 lbs. Price, \$7.75. Add postage.



Lowell Bucket Pump



The "Lowell" is double acting, discharging one-half the solution on both the up and down stroke, thus giving a continuous spray. Will develop a good pressure; is easy to operate; is practically non-breakable and will last for years.

SPECIFICATIONS

PUMP: All working parts of pump are brass, including cylinder, plunger tube, plunger valve seats and valve caps. The valves are 9/16-inch solid bronze balls. Nothing to rust or corrode. The ball valves insure free movement of the liquid, and are practically nonclogging.

AIR CHAMBER: The hollow plunger tube acts as an air chamber.

HANDLE: Is made of malleable iron.

HOSE AND NOZZLE: Our own special designed nozzle is used with 3 feet of 3/8-inch hose.

FOOT REST: Is of malleable iron, 13 inches high, and clamps to cylinder of pump.

Price, \$5.00. Weight, 9 lbs. Add postage.

The Ideal

This pump does away entirely with the objectionable foot-rest, clamps, leather suction, packing, etc. It requires no fastening of any kind and holds itself down and works anywhere and everywhere. All the operator need do is to press

the plunger down. It rises of itself, the upward stroke being made by a brass spring forcing the cylinders apart.

The all-brass suction working within a brass cylinder with all brass valves, does away entirely with all leather, rubber, or other packing. It is practically impossible for any part to get out of order.

Everything except handle and hose is solid brass.

Is the easiest working and will do more different kinds of work than any pump ever made. Will pump from a pail, barrel, tank, spring or creek. Without fastenings of any kind it stands firmly wherever placed.

Will throw two solid continuous streams, one flat spray and one fine round spray. Has automatic mixer to keep solution stirred.

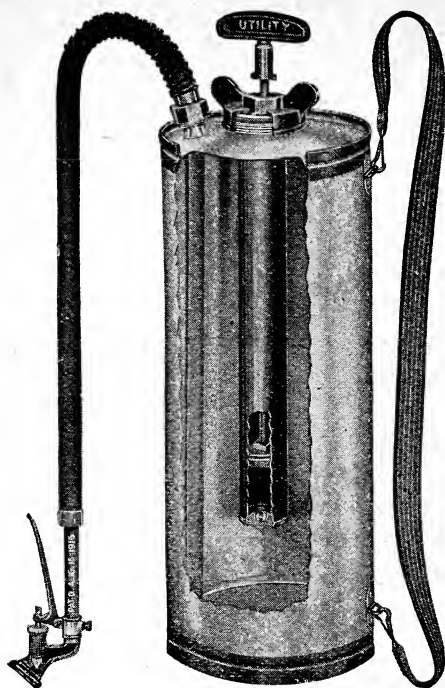
Weight, 5 lbs. Price, \$5.00; add postage.

Utility Compressed Air Sprayer

The Utility is designed to meet the requirements of an extra high pressure sprayer, which is very essential in obtaining a fine spray for high trees, poultry houses and other outbuildings, as well as vegetation of all kinds.

The Utility is especially adapted for white-wash, cold-water paint, Bordeaux mixtures and Paris Green.

THE TANK should be filled to the line indicated on the outside. It being tested to 95 lbs. pressure to the square inch at the factory insures a safe working pressure. It will give a real spray if the operator will only push on the pump handle. The tank is fitted with a



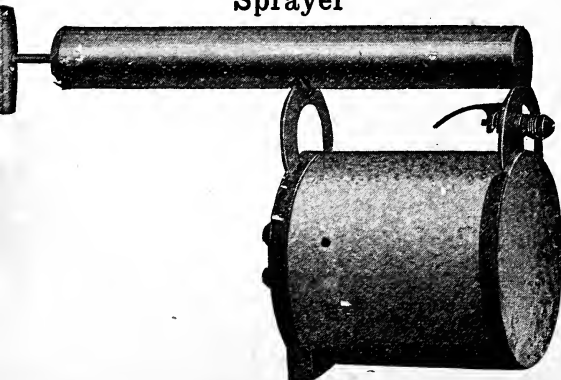
Utility Compressed Air Sprayer

standard garden hose connection, making it useful for other kinds of work as well. Tank requires no special wrench for opening when refilling is necessary.

THE PUMP can be easily removed by a one-quarter twist of the opening cap. The cylinder is made entirely of brass tubing with a ball check in the bottom which will not stick. The pump and filling cap are held in a tight position by a gasket locked tight by a four point expansion device. There being no twisting action on the gasket, prolongs its life indefinitely.

THE NOZZLE is made of all brass, and can be operated at any distance by merely adding a longer piece of one-quarter inch gas pipe and a piece of wire. The valve stem is made of a special hard brass, seating on a soft brass ground seat. This makes the best kind of shut-off known. The valve contains a strainer which positively prevents clogging. The valve stem has a packing box which can be tightened in case of necessity. Capacity, 3½ gallons. Weight, 11 lbs. Price, \$7.00. Add postage.

Inland Business Compressed Air Sprayer



The Inland Business Sprayer is one of the most popular with the trade because it meets the demand of the general public for gardens and small fruits. It is a compressed air sprayer giving a fine, continuous spray; so fitted with a powerful pump, that by an occasional stroke of the plunger the air pressure is easily retained.

The tank is made of heavy galvanized steel, fitted with an air pump of heavy tin plate, and all spray tubes and nozzles of solid brass.

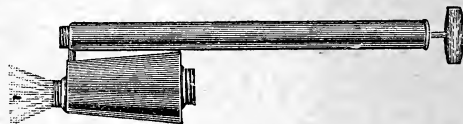
It meets the demand for a compressed air sprayer at a low price.

Pump cylinder 14½ inches long by 1¼ inches in diameter.

Plunger rod of ¼ inch bright steel; our special type plunger; bumper washer securely soldered.

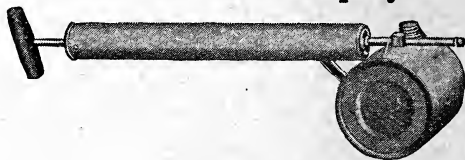
Plunger of best leather obtainable properly cupped. Capacity, one gallon. Weight, 3 lbs. Price, \$3.00. Add postage.

Inland Powder Sprayer



In some sections potato growers, stock and poultry raisers prefer to use Paris Green and disinfectants in powder form, mixed with dry plaster. To meet such a demand the "Blow" Sprayer is recommended. This will be found to be one of the best powder sprayers on the market and will give entire satisfaction. Weight 2 lbs. Price, \$1.00. Add postage.

Inland Continuous Sprayer



The Inland Continuous Sprayer is so constructed that it not only sprays on the downward stroke of the plunger but also when it draws back, thus causing a continuous mist-like spray.

The air chamber measures 1½ inches in diameter by 14 inches long. Has a ¼-inch steel plunger rod; special type plunger. The sprayer is fitted with a 3-16 inch brass ball check valve. The solution tank is made from heavy IX tin, ¼-inch zinc filler cap. Capacity one quart. Extra tip for spraying upwards, with each machine. Weight, 2 lbs. Price, \$1.00; add postage.

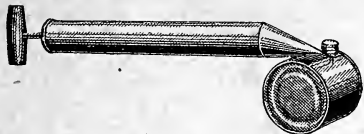
Inland Special Sprayer



Inland Special Sprayer is a Single Tube Tin Sprayer. The pump cylinder measures 14½ inches in length by 1¼ inches in diameter.

Sprayer is fitted with a ¼-inch steel plunger rod; special type plunger. The special arrangement of the spraying tube is such that it thoroughly breaks up or atomizes all oils and solutions into a fine mist-like spray which penetrates all cracks and crevices. Weight, 2 lbs. Price, 65c; add postage.

Baby Midget Sprayer



A small size single tube Tin Sprayer for household use. Strong and substantial and possessing every feature of the larger types.

TANK: Tin, 3 inches in diameter, 2¾ inches long; ¼-inch can screw for filling; ¼-inch plunger rod. Black handle and plug. Pump tube, 1¼ inches in diameter, 10 inches long. Length over all, 15½ inches. Capacity, about ½-pint. Price, 50c. Weight, 1 lb... Add postage.

Insect Powder Blower

Price, 25c and 35c; postpaid, 30c and 40c.

PUMP ATTACHMENTS

Clamps

Two of these clamps can be used on our long shank couplings and mender.

Price, postpaid, 5c; dozen, postpaid, 60c.



Cut-Offs



SPRAY ROD CUT-OFF—This ¼-inch shut-off is for use on spray rods in place of globe valves. Shuts liquid off instantly, saving time and material. Can be put on any rod.

Price, \$1.00; postpaid, \$1.05.

BALL CUT-OFF—The perfect ¼-inch rod cut-off. Far better than a globe valve for it opens full with less than one turn of the handle. Better than any lever cut-off because it will not leak, since the ball revolves instead of wearing. Fits any spray rod. Price, \$1.50; postpaid, \$1.55.



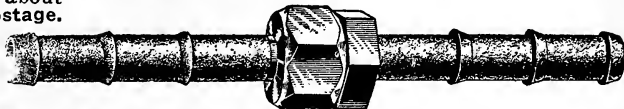
BEAN DOUBLE BALL CUT-OFF—It is much simpler and less expensive than two single cut-off valves, and is fitted for ¼-inch hose

couplings on the discharge ends, and ¾-inch pipe thread on the inlet. Either line of hose may be shut off without affecting the other, on both may be turned on or off. No spray pump should be used without this cut-off. Price, \$4.00. Postpaid, \$4.10.



HOSE CONNECTION—To connect ¼-inch hose to spray rod. Price, each, 35c; postpaid, 40c.

Spray Hose Menders. Price, 30c; postpaid, 35c.



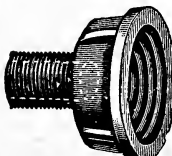
HOSE COUPLING—With hexagon nuts and double length shank, so will not putt or blow out.

Price, per pair, 75c; postpaid, 80c.

Female half only, 40c; postpaid, 45c.

Male half only, 40c; postpaid, 45c.

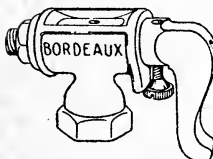
Hose Reducers



Price, one-piece reducer, 30c; postpaid, 35c.

HOSE REDUCERS—These are for connecting a male hose coupling on end of spray hose to the spray rod. The two-piece connection has a swivel joint and is easily attached. When the one-piece connection is used the entire rod must be turned in screwing on.

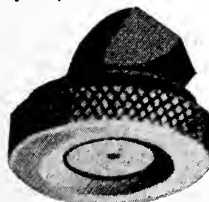
NOZZLES



BORDEAUX—This nozzle is a new pattern which eliminates the common objections to this type. The handle is built close down to the body and is shaped so as to avoid

catching in the branches. The corners of the slot are cut away, leaving plain straight faces which form a clean-cut spray without ragged edges. Price, \$1.40; postpaid, \$1.45.

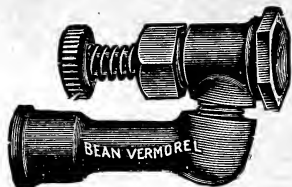
CLIPPER (Patented)—Throws a most perfect, flat fan-shaped spray. The spraying lips are so shaped that all parts of the spray travel the same distance from the lip, thus meeting the same resistance and so carry just as far after leaving the nozzle. It throws either a fan-shaped spray, a long-distance spray or a solid stream; can be shut off altogether. Especially adapted for whitewashing and painting. Price, \$1.50; postpaid, \$1.55.



MAJESTIC ANGLE—Throws a very large, beautiful, penetrating spray. Fitted with removable eddy chamber. The nozzles can be easily taken apart and cleaned. Wearing parts are cheaply and quickly replaced. Extra metal disc furnished with each nozzle. Price, \$1.40; postpaid, \$1.45.

VERMOREL —

This nozzle throws a beautiful, misty, circular spray. All trouble caused by clogging in the bend is avoided by having the stem detachable. This also shows the nozzle to be turned at any angle desired.



Price, \$1.40; postpaid, \$1.45

1/4 NOZZLE ELL—It is very important to spray down into the blossom. This piece has just the right angle and screws onto the end of any spray rod. Then attach the nozzle.

Price, 40c; postpaid, 45c.



1/4 NOZZLE Y—The Brass Y shown here will screw onto any spray rod, and all kinds of spray nozzles screw into the other two ends. This is intended for use when two nozzles on one rod are desired.

Price, 85c; postpaid, 90c.



ANGLE NOZZLE Y—1/4-inch. Price. 85c; postpaid, 90c.

PRESSURE GAUGE REGISTERS—200 lb., price, \$4.85; postpaid, \$4.95. Registers, 300 lbs., price, \$5.25; postpaid, \$5.35.

Bamboo Extensions

Threaded for nozzle and stopcock.



ALUMINUM ROD—(Inside Bamboo)—6-foot, \$3.25; 8-foot, \$3.75; 10-foot, \$4.25; 12-foot, \$4.75.
IRON ROD (Inside Bamboo)—6-foot, \$2.25; 8-foot, \$2.50; 10-foot, \$2.75; 12-foot, \$3.00.

RODS ONLY

IRON GALVANIZED—(Not inside Bamboo)—5-foot, 90c; 8-foot, \$1.25; 10-foot, \$1.50; 12-foot \$1.65.

Hose

The high pressure and corrosive and oily materials used in spraying are very destructive to ordinary spray hose, and have caused many persons to believe that hose for this purpose cannot be relied upon to last out a season's hard usage. Our Spray Hose is constructed and treated on purpose for this use, and as it saves annoyance and lasts longer, it is much more economical. Furnished in 12½, 25 and 50 foot lengths. Moulded, 30c per foot; 5-ply, 15c per foot.

This is of extra fine quality. 1/2-inch size. Fittings, \$1.00 extra. Fittings consist of one hose connection, one female coupling and four hose clamps.

Hose Washers, 1/2-inch rubber, doz., 10c.

SPRAY MATERIALS AND INSECTICIDES

The secret of successful spraying lies in knowing the correct time in which to spray.

The very important fact that thoroughness in spraying is one of the main points should be remembered. Many failures can be traced to the lack of thoroughness.

It is also important that the orchardist should become familiar with the name and character of the different diseases and pests. If the disease is not known apply to your inspector for information. Specimens of diseased fruit or leaves, or other portions of trees or plants, may be forwarded to your state experiment station without cost, where a careful microscopical examination will be made and the disease identified.

Arsenate of Lead



Arsenate of Lead is a chemical combination of lead and arsenic. The arsenic is the poisoning agent. The lead serves two purposes—it acts as a binder, holding the arsenic upon the foliage and forms a strong chemical union with the arsenic, which causes foliage injury.

Powdered

Grasselli Dry Powder Arsenate of Lead mixes quickly and easily; stays mixed longer and is very adhesive. Dry Powder Arsenate is a light, fluffy powder that cannot freeze, dry out, cake or lose its strength.

Grasselli Dry Powder Arsenate of Lead may be mixed with water and applied as a liquid spray or it may be used as a dust spray. If applied as a liquid spray it is usually used 1 pound to 1½ pounds to 50 gallons of water. For potato beetles and other insects that are hard to kill use two to three pounds to 50 gallons of water. If used in the dust form it may be applied as received by finely dusting on the foliage or it may be mixed with an equal bulk of freshly burned wood ashes or powdered lime. Not available. Packed in 1s, 5s, 10s, 20s, 50s and 100 lbs. At the time of going to press we are unable to quote any prices. Write for prices, stating size wanted.

Arsenate of Calcium

Is an insecticide of merit and one which has proven to be satisfactory by many experiments conducted both by commercial growers and by the United States Department of Agriculture.

Its uses are similar to those of Arsenate of Lead and it is especially adapted for use on seed fruits for the control of codling moth, curculio and other insects against which Arsenate of Lead is ordinarily used.

We do not recommend Arsenate of Calcium on stone fruits such as peaches, Japanese plums, etc.

The arsenic content of an insecticide determines to a great extent its efficiency, and Arsenate of Calcium contains the maximum quantity of arsenate oxide, namely, 43 per cent. This gives it maximum killing

strength and means that less is needed to do a given work.

Due to the low percentage of water soluble arsenic that it contains, danger of burning is reduced to a minimum.

Packed in 1s, 5s, 10s, 20s, 50s and 100 lbs. Ask for prices, stating size wanted.

BORDEAUX MIXTURE

Fungi-Bordo, "the perfect Dry Bordeaux Mixture-Concentrate," is a dry powder which you receive in sift-proof impervious packages. There is no danger of freezing nor of drying out in the package, and the material always reaches you in prime condition for immediate use. The material as it reaches you is a whitish powder, and the only precaution necessary in keeping or storing it is to keep it tightly closed and away from moisture as much as possible.

It is scientifically founded so as to insure perfect results, and if used in accordance with directions it gives a splendid, fungicidal spray which stays in suspension well, adheres to the foliage and can be used in combination with Paris Green, Arsenate of Lead or other insecticides with an extraordinary degree of safety.

Packed in 1s, 5s, 10s, 20s, 50s and 100 lbs. Ask for prices, stating size wanted.

SPRA-MULSION

SPRA-MULSION is a high quality insecticide and scalecide. It consists of certain fractions of crude petroleum obtained by distillation mixed with other agents yielding a finished product which makes a perfect and white emulsion when mixed with water.

For spraying dormant trees for Brown Apricot Scale, San Jose Scale, Aphis Eggs, Red Spider Eggs, Moss, etc., use from 12 to 16 gallons of SPRA-MULSION to make 200 gallons of dilute spray. Where the trees are badly covered with moss, it is advisable to add about 8 pounds of Caustic Soda to each 200 gallons of water. The Caustic Soda should be dissolved in the water first and the SPRA-MULSION added. This application should be made in the fall after the leaves are off, or previous to the buds swelling in the spring.

For Pear Thrips on Pear and Cherry Trees and Aphis on Apple and Cherry Trees, etc., before blooming use from 6 to 8 gallons of SPRA-MULSION and 1 pint of Black Leaf "40" to make 200 gallons of dilute spray. For spraying after the trees bloom, use 4 or 5 gallons of SPRA-MULSION and 1 pint of Black Leaf "40" to make 200 gallons of dilute spray. Dilute the Black Leaf "40" in the spray tank first; then add the SPRA-MULSION and do not agitate or stir after the materials have once been thoroughly mixed and are uniform.

Shake the barrel or container thoroughly from end to end and be sure the various ingredients are properly mixed before removing for use. Gallon, \$1.50; 5-gallons, \$6.50; bbls., \$30.00.

DRY LIME SULFUR

Containing Other Compounds.



This is the only actual Dry Lime Sulfur on

the market that can be used for any purposes for which Liquid Lime Sulfur Solution has been used heretofore. It is simply the Liquid Lime Sulfur Solution dried and only the addition of water is required to produce the spray. Every grower knows Lime Sulfur Solution and what it will accomplish, and the material has come in to general use despite its many disadvantages.

Directions: From ten to twelve pounds of Dry Lime Sulfur dissolved in fifty gallons of water should be used as dormant spray against scale, insects, etc. From two to three pounds to fifty gallons of water in combination with the usual proportion of Dry Arsenate of Lead should be used for summer spraying on all seed fruits, such as apples, pears, quinces, etc. From one to one and one-half pounds to fifty gallons of water in combination with the usual strength of Arsenate of Lead should be used for summer spraying of peaches, plums and all stone fruits.

Price: Lb., 30c; 5 lbs., \$1.25; 10 lbs., \$2.00; 25 lbs., \$3.75; 50 lbs., \$6.50; 100 lbs., \$12.00; 200 lbs., \$22.00.

SPRAYOMETER

The Lime-Sulphur wash for spraying has become recognized by the orchardist as one of the best and most economic remedies for numerous forms of disease, fungi and insects, injurious to fruit trees.

It is necessary to know the strength or weight of the solution and the only practical way of ascertaining this is by means of a Hydrometer. The Hydrometers made for this purpose are known as "Sprayometers."

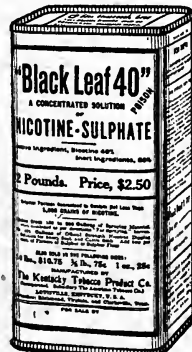
SPRAYOMETER SET, consisting of one LISUL Sprayometer, one 12-inch plain Glass Cylinder in wooden container, with full instructions. **Per set, \$2.00; postpaid, \$2.10.** Sprayometer only, \$1.50; postpaid, \$1.60.

We exercise the greatest care in packing all glassware, but do not insure its safe delivery. Forwarded only at purchaser's risk.

Packed in 1, 5, 10, 25 and 100-pound packages. Write for price, stating size wanted.

BLACK LEAF "40"

A Concentrated Solution of Nicotine-Solution (Poison)



For the convenient information of those desiring to use "Black Leaf 40" the following suggestions are made:

Against sucking insects, such as Green and Woolly Aphis, Pear Psylla, Grape Leaf Hopper, Pear Thrips, etc., 1 part "Black Leaf 40" to about 900 to 1,000 parts water.

Against more resistant plant lice, such as Black Aphis and Rosy Apple Aphis, 1 part "Black Leaf 40" to about 500 to 700 parts water.

The addition of one or two pounds of any good soap, or of Whale Oil soap, to each 50 gallons of water is often very advantageous. When using dissolve the soap in the water before adding "Black Leaf 40."

Price, 1 oz. bottle, 25c; ½ lb. tin, \$1.00. 2 lb. tin, \$3.25; 10 lb. tin, \$13.75. Not mailable.

Bluestone

Used successfully in winter sprays. Lb., 30c postpaid. If wanted in 100-lb. or barrel lots, market price.



The root-maggot, as well as the strawberry crown borer, is hatched from an egg deposited on the plants by the maggot fly. This fly dislikes the odor of the spray and will not deposit the eggs where this odor is present. To get best results the ground should be sprayed freely before planting, then again as soon as the vegetable comes up and before the maggot fly makes its appearance. The spray will kill maggots, grubs, cutworms and caterpillars by contact when freely used. It is better to spray early and often enough to prevent the deposit of eggs than to wait and kill the worms.

The spray should be reduced one part spray to 125 parts water. In wet weather and when there is lots of moisture, apply mixture of about one part spray to 100 parts water.

Ordinarily an application every three or four weeks should be sufficient to keep vegetables entirely free from pests.

Half pints, 35c; pints, 65c; quarts, \$1.00; ½ gallon, \$1.50. Not mailable.

FORMALDEHYDE

This has proved to be much better than vitriol, etc., for treating grain to prevent smut or for treating potatoes to prevent blight and scab. One pound is sufficient to treat 40 to 50 bushels of grain. Half pint bottle, 50c; pint bottle, 85c; quart bottle, \$1.50; ½ gallon, \$3.00; gallon, \$5.50. Not mailable.

Hammond's Grape Dust



To prevent mildew on roses, grapes and gooseberries. Lb. pkg., 35c; 5 lb. pkg., \$1.25. Add postage.



For destroying slugs, cabbage and turnip flea, currant worms, etc. Lb. pkg, 30c; 5 lb. pkg., \$1.00; add postage.

Hellebore

Especially used for destroying turnip, currant and gooseberry worms, larva of sawflies, etc. Lb., 75c; add postage.

Nico-Fume Tobacco Paper

For fumigating greenhouses and other places where fumes can be confined. Considered indispensable by our most successful greenhouse men. Price, 24 sheets, \$1.25; 144 sheets, \$5.00. Weight, 1 lb. and 5 lbs. Add postage.



Poor Paris Green is dear at any price. Effective against all chewing insects. Packed in ½'s, 1's and 2-lbs. Owing to present conditions we are unable to quote prices. Write for prices, stating what size and quantity you desire to purchase.

Quassia Chips

Used with Whale Oil Soap for lice on cabbage, cauliflower, etc., and on fruit trees. Lb., 15c; add postage. At purchaser's expense: 25 lbs., \$3.00; 50 lbs., \$5.50; 100 lbs., \$10.00.

Sulphur

Powdered, lb., 10c, add postage; 100 lbs., market price.

Sulpho - Tobacco plant and Animal-Soap is a wonderful agent for the destruction of all bugs and insects. One or two applications will rid plants of the pests.

Destroys cabbage, potato and squash bugs, currant worms, lice, green-fly, mealy bug, red spider, etc. Is also valuable as a wash for dogs and other animals.

3 oz. cake makes 1½ gallons solution. Price, 15c; postpaid, 20c.

8 oz. cake makes 4 gallons prepared solution. Price, 30c; postpaid, 35c. Lb. cake, 50c; postpaid, 55c.

Tobacco Dust

For green and black aphids, fleas, beetles. Lb., 15c; 10 lbs., \$1.25; 25 lbs., \$2.50; 50 lbs., \$4.50; 100 lbs., \$8.00; add postage.



SPRAYING DIRECTIONS FOR THE PRINCIPAL FRUIT DISEASES

By F. D. Heald, Plant Pathologist, Experiment Station, Pullman, Wash. Condensed for use in this catalogue from Bulletin Series 1, Number 41.

INTRODUCTION

In the prevention or control of the diseases of fruits various practices must be put into operation. The grower should bear in mind that spraying is not a panacea for all troubles, but only one of the important measures for use, against certain fungous diseases and insect pests.

FUNGICIDES

Chemical substances which check or prevent the growth of fungi and so protect plants from infection when applied to their surfaces are called fungicides. They are in reality fungous poisons. While many substances have been tried a relatively small number have come into general use. The most important fungicides used in spraying are lime-sulphur and Bordeaux mixture, the former being also valuable as an insecticide, and the latter an insect repellent.

HOW TO SPRAY

Success in preventing or controlling fungous diseases by spraying depends in a large measure upon the following:

1. The use of a spraying apparatus suited to the crop to be protected or to the trouble to be prevented.
2. The application of the spray mixture at the right time.
3. The selection and use of the proper fungicide.
4. Thoroughness of application.
5. The use of a high pressure whenever possible.

Apple

Anthrachnose or Black Spot Canker—*Bordeaux mixture. 1. Immediately after the fruit is picked. 2. Three weeks later if fall rains begin early and the disease is severe. Prune out seriously infested small branches and cut out the dead bark from the cankers on the larger limbs.

Powdery Mildew—Lime sulphur. 1. Just after the petals fall. 2. Again in connection with the second spraying for codling moth. An earlier spraying before the petals unfold is suggested as of probable value. The spraying should be supplemented by the pruning out of seriously infested twigs during the regular pruning operations.

Scab—Lime sulphur. 1. Just before the blossoms open, that is, when the cluster buds have expanded and the petals show pink. 2. Again after the petals fall. 3. A third application ten days to two weeks after the second. 4. A fourth spraying may be necessary in regions or seasons having prolonged rains. In Eastern Washington two sprayings will generally be successful, while the humid sections of the west generally require the additional applications.

Pear

Anthrachnose and Powdery Mildew may be controlled by the same spraying as for apple.

Pear Scab is more commonly found on the twigs than in apple and for this reason the first spraying should be made earlier. Spray as follows: Lime-sulphur. 1. Just before the buds swell in the spring. 2. Before the blossoms open. 3. After the petals fall. 4. About two weeks later. Additional sprayings in accordance with local conditions.

STONE FRUITS

Apricot

California Blight—(See peach).

Cherry

California Blight—Lime sulphur. (See plum and prune for spraying program.)

Brown Rot—(See plum and prune for spraying program.)

Shot-hole or Yellows—Lime-sulphur or Bordeaux mixture. 1. Half way between the blossoming period and the maturing of the fruit. 2. Just after the fruit has been picked. 3. About one month after the second spraying.

Peach

Brown Rot—(See plum and prune for spraying program.)

California Blight—Lime-Sulphur. 1. About November 1, or as soon after the later fruit has been picked as possible. If one alone is not effective add the following: 2. Two or three weeks after the petals fall. 3. Again after an interval of two or three weeks. 4. If rainy weather favorable to the disease continues, a third spring application may be required.

Leaf Curl—Bordeaux mixture. Lime-sulphur. A single application in the spring before the buds begin to swell is effective. Fall spraying with lime-sulphur has also given good results in New York.

Powdery Mildew—Lime-sulphur. 1. Very soon after the petals fall. 2. At intervals thereafter, the number of applications and the intervals to be varied in accordance with the severity of the disease.

Plum and Prune

Brown Rot—For blossom blight: Lime-sulphur or Bordeaux mixture. 1. Just before the petals open. 2. Again just after the petals fall if the disease is severe.

Brown Rot—For fruit rot: Lime-pulphur. 1. About 3 or 4 weeks after the petals fall. 2. Later sprayings at intervals, until fruit is near maturity. The number of applications and the intervals between spraying should be governed by local conditions.

SMALL FRUITS

Blackberry

Anthrachnose—Bordeaux mixture. 1. Before the buds open. 2. Two or three weeks after the petals fall.

Leaf Spot—Bordeaux mixture. 1. When the buds are beginning to unfold. 2. At later intervals if necessary. Spraying for anthracnose will control leaf spot.

Cane Blight—(See raspberry).

Currant

Anthrachnose—Bordeaux mixture or lime-sulphur. Practice clean cultivation with destruction of fallen leaves and spray as follows: 1. Just before the leaves appear. 2. Again after the leaves have begun to unfold. 3. Later at intervals of two or three weeks until fruit is two-thirds grown if the disease is severe.

Leaf Spot—(See gooseberry).

Powdery Mildew—(See gooseberry).

Gooseberry

Powdery Mildew—Lime-sulphur. Practice careful pruning to thin canes and remove seriously mildewed shoots and spray as follows: 1. When the first leaf clusters have begun to open (leaf clusters $\frac{1}{4}$ to $\frac{1}{2}$ inch long). 2. Again after an interval of two weeks. Additional sprayings may sometimes be needed but the increased protection is not generally commensurate with the cost.

Leaf Spot—Bordeaux mixture or lime-sulphur (the same as for powdery mildew if severe enough to demand treatment).

Grape

Powdery Mildew—Lime-sulphur. 1. When the blossoms begin to open. 2. Later while grapes are still small, and if possible before mildew shows. In case the disease was severe the preceding season an earlier treatment should be given when the young shoots are 6 to 8 inches long.

Loganberry

(See blackberry diseases.)

Raspberry

Anthraxnose—(See blackberry and use same treatment if disease is severe).

Cane Blight—(Cut out and burn all diseased canes and try Bordeaux mixture). 1. Before growth starts. 2. After the plants are in foliage. Spraying has not given the desired protection.

Leaf Spot—(See blackberry).

Spur Blight—Bordeaux mixture. 1. When canes are 8 to 12 inches high. 2. Again two weeks later. 3. Again after a similar interval. 4. Immediately after picking. All old fruiting canes should be removed and burned as soon as fruit is harvested.

Strawberry

Leaf Spot—Not generally serious in Washington. Generally cutting and burning of the foliage after harvest is effective. If disease becomes severe use Bordeaux mixture.

Powdery Mildew—Not generally serious. If troublesome use sulphur spray, either liquid or dust.

SPRAYING DIRECTIONS FOR ORCHARD INSECTS

By A. L. Melander, Entomologist Agricultural Experiment Station, Pullman, Wash. Condensed from Bulletin Series 1, No. 39 and 54.

Poison Stomach Sprays for Chewing Insects

(Coat the plant, not the bug. Must be eaten to be effective. Intended for caterpillars, worms, slugs, grasshoppers or beetles which devour the foliage or eat into the fruit. Valueless for sap-sucking insects, like aphids, thrips, mites or leaf hoppers.)

Arsenate of Lead—Arsenate of lead, paste (poison), $2\frac{1}{2}$ pounds. Water, 100 gallons. For newly hatched or very small insects it is not necessary to use it stronger. For old or very resistant insects use double the quantity or more. Smooth the paste thoroughly with a little water before diluting. Arsenate of lead powder is twice as strong as the paste. Do not use arsenate that feels gritty or that settles rapidly. Keep agitated while spraying.

Poison Bait—Paris green, white arsenic, 1 pound. Shorts, bran or alfalfa meal, 30 pounds. Mix dry, and season with either four lemons or oranges ground through a meat chopper, or one or two quarts of molasses, or one pound of salt. Then add enough water to form a mash and scatter on the ground where required. Do not put directly on the plants. If it is deemed necessary to put the bait on the foliage substitute arsenate of lead powder for the other poison. For cutworms, grasshoppers, crickets, flea beetles and slugs. Of no value against fireworms.

Standard Bordeaux—This standard fungicide is usually a good repellent for leaf-eating insects because of its metallic taste. Useful for grasshoppers, flea beetles and cutworms.

Arsenate of Lead—Codling Moth—1. The Calyx Spraying Is by Far the Most Important Application of the Season... A. Most worms, both early and late, seek to enter the fruit through the calyx end and can be reached only by this spraying. b. By checking the first brood it prevents to that extent the second and third broods from coming into existence and thus automatically reduces late infestation. c. Paradoxical though it may seem, it is the best treatment to prevent side worms, stings and windfalls at harvest time, but should be followed up by thinning the fruit for worms during the time of the first brood. d. It is the only application whose effects persist undiminished through the season. e. Practically it destroys more worms than all other possible sprayings combined, and when properly given has often proved sufficient treatment for the season. f. If poorly applied, later sprayings must be depended on and no amount of later spraying can make good the first neglect.

2. Late Sprayings Are Always Disappointing —a. They are hard to time correctly. b. At best they reach only the relatively few worms that do not find the calyx end. c. They never prevent all stings. Side worms are apt to reject their first nibblings of apple skin and thus unpoisoned enter the fruit even heavily sprayed. d. It is impossible to give and keep a thorough coating of spray poison on the growing waxy apple skin; hence some side worminess always results. e. Increasing the strength of the spray or the number of applications will not abolish stings and side worms.

CONTACT SUFFOCATING SPRAYS FOR SAP-SUCKING INSECTS

Summer Smother Sprays—(Intended for those insects that live exposed but that do not eat holes in foliage, such as aphids, scale insects, mealy bugs, thrips, mites, plant-bugs and leafhoppers.)

Nicotine, or Tobacco Spray—Sulphur—Fine-ground sulphur flour is sometimes used as a dust spray, either alone or diluted with equal parts of hydrated lime. As a liquid spray stir 2 or 3 pounds of sulphur into a glue solution containing 1 pound of common glue dissolved in a gallon of boiling water, and dilute to 40 gallons. Mainly intended for mites.

PRACTICAL POINTERS

There is no single remedy for all plant troubles. First determine what you must spray for and then use the formula that fits your case. There are many troubles that can not be benefited by spraying, but require special treatment.

Distinguish between insect injury and fungous disease, and between the work of chewing and sucking insects.

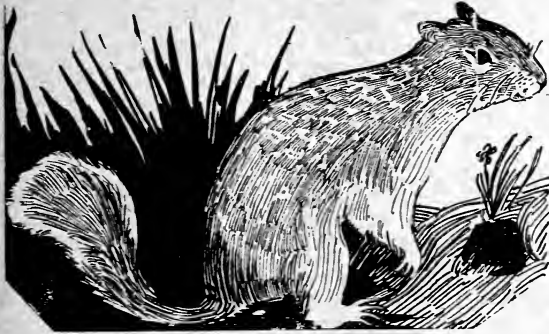
Do not try to improve on the formulas by adding other ingredients or by using the sprays stronger than recommended.

Arsenicals are stomach poisons and will not kill sap-sucking insects.

Fish Oil Soap

For hop louse and green aphid. Bar, 20c; add postage. At purchaser's expense: 25 lbs., \$3.00; 50 lbs., \$5.50; 100 lbs., \$10.00.

Woodlark Squirrel Poison



Requires no mixing preparation—always ready for use. When you buy demand the best. Get the "Woodlark" brand. Lb., 50c; 10 lbs., \$4.50; 25 lb. pail, \$10.00. Not mailable.

KILMOL—Squirrelgophene

Kilmol is the name given to a recent discovery made by the United States Government. This is used for the extermination of squirrels and gophers and results obtained are 100 per cent efficiency. Careful tests under Government supervision have proven that Kilmol is the most effective and economical exterminator that has yet been discovered. The cost of clearing your field of these pests averages from 18 to 28 cents per acre.

The gas made by vaporizing Kilmol on a waste ball is much heavier than air and settles to the bottom of the burrow. Only a small amount escapes even though the surrounding ground be full of cracks. It is practical to use Kilmol.

Gallon, \$2.50; 5 gallons, \$9.00. Not mailable.

Waste Balls

DIRECTIONS—Put one hundred and twenty waste balls in a bucket, and pour over them one gallon of Kilmol. Use one waste ball to each burrow. After a lapse of from three to five minutes ignite the gas in the burrow with a match or torch. Cover the opening with dirt, packing it closely to prevent the escape of the poisonous fumes.

Another method is to roll the ball into the burrow, and close the opening tightly without exploding. This is used when the ground is dry and there is danger of fire. By the firing method the efficiency is from 93 to 100 per cent. Without exploding, 95 to 98 per cent.

Kilmol is the only liquid that will give this percentage of efficiency. No other material will give more than from 75 to 85 per cent. The 15 to 25 per cent that are not killed necessitates going over the land at least twice and often three times. Once over is sufficient when Kilmol is used. 100, 75c; 500, \$3.25; 1,000, \$6.00. 100 waste balls weigh 3 lbs. Add postage.

TREE TANGLEFOOT

To protect trees against climbing insect pests in a simple, economical and effective way, use Tree Tanglefoot—a sticky substance applied directly to the bark of trees. One application remains sticky three to four months fully exposed to the weather. Easily applied with a wooden paddle. One pound makes a band 8 to 9 feet long. No mixing, always ready for use. Will not injure trees. Lb. can, 50c; 3-lb. can, \$1.50; 10-lb. can, \$4.50. Mailing weight, 2, 4 and 11 lbs.; add postage.



Inland Fruit Ladder

Full rodded. Wide spread at bottom. All steps over 8-foot lengths are trussed.

Rails $\frac{1}{4}$ x $2\frac{1}{2}$ ins.

Steps, $\frac{3}{4}$ x $2\frac{1}{2}$ ins.

Weight about $2\frac{1}{2}$ lbs. to the foot.

Following sizes kept in stock for prompt shipment:

6-ft., bot. spread, 30 ins.

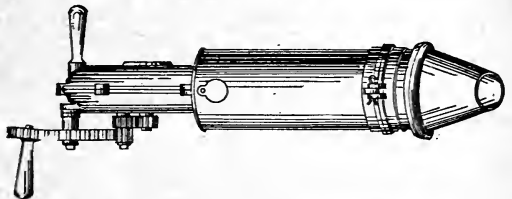
8-ft., bot. spread, 35 ins.

10-ft., bot. spread, 40 ins.

12-ft., bot. spread, 42 ins.

Price, 50c per foot.

CHEMICAL SQUIRREL TUBE



The greatest exterminator of all animals that burrow in the ground.

The chemical squirrel tube is endorsed by the Pullman College and Moscow University.

The main secret of this Smoker is the inner tube, which allows the machine to remain comparatively cool, and the force draft from the high-speed fan direct into the mouth of the hole gives a constant pressure of a continual flow of poisonous fumes. Take a blind hole or one that has only one opening and the result is a continuous flow that will cause a circulation, whereas a pump would cause a stagnation of the fumes and air. Its work is rapid and its effects are sure. Experiments have proven that squirrels and gophers expire almost instantly when they come in contact with the deadly smoke or gas.

DIRECTIONS FOR USE—The chemical used is carbon bisulphide. Fill tube two-thirds full of old sacks or any kind of waste, saturate with chemical, and blow fumes in the hole.

DO NOT LIGHT, AS IT WILL EXPLODE—For smoking, old sacks or dry manure has no equal. With about one pint of sulphur to each load this can be used with very little cost to the farmer.

Fifty cents' worth of sulphur will clean 100 acres of badly infested land.

Fill in all holes that smoke escapes from.

If directions are followed success is sure.

Price, \$15.00.

CLOVER LEAF FRUIT PICKING BAG



Two things are desired in picking fruit: First, safety of the fruit; second, speed in picking. The Clover Leaf Picking Bag combines both.

Constructed of heavy canvas with a spring

steel frame at the top, the opening in which the fruit is placed, is large. The lower end of the bag folds squarely back to the steel frame at the top. The lower portion of the sack being held securely by means of an ingenious fastener attached to the steel frame.

When one wishes to empty the filled sack, it is but the work of a moment to release the cords from this fastener and the fruit may then be gently deposited in the boxes, through the now open lower end of the sack. Two broad shoulder straps insures comfort to the picker even when the sack is full. Both of the pickers' hands are free for his work. He can work faster and with greater comfort than with other picking devices.

Price, \$2.25. Weight, 3 lbs. Add postage.

INLAND FRUIT PICKING BAG

The load is carried from the shoulders by heavy halter web that will not curl, and in this position gives ease and comfort to the picker. A strap around the waist keeps it in position. The mouth of the bag is always open, being constructed with a novel shaped metal frame so that the hands of the pickers can go with the fruit to the bottom of the bag. Bottom of the bag is opened instantly by the snap and fruit is emptied out without bruise or injury.

When snapped at top loop the bag will hold one-half bushel; when snapped at bottom loop as shown in cut the bag will hold about a bushel.

Body of bag is made of 10-ounce canvas double stitched with waxed harness thread and reinforced with leather riveted at wearing parts.

Price, \$2.50. Weight, 3 lbs. Add postage.

Write for definite price on both picking bags, as these quotations are subject to change.



The Skookum Orchard Lid Press has many exclusive features and has proven to be the favorite with the fruit growers of this section. The frame is strongly made and bolted together and is reinforced with iron on wearing parts. The Skookum is provided with two heavy wrought iron arms connected with a curved plate of heavy steel. These arms and plate distribute the pressure evenly throughout the box, preventing the breakage of lids, which delays the operator and adds greatly to the expense. These arms connected by curved plate and the base of press directly under the arms being curved and reinforced with iron insures a perfect bulge on top and bottom. This feature alone is of great value to the fruit growers, as it assures of a better appearing and shipping package than can be obtained by ordinary box press methods. It is strong, compact and quickly operated. Price, \$21.00.

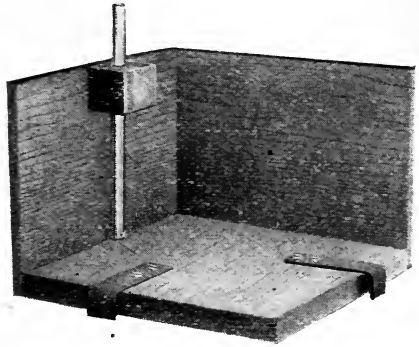
NAIL STRIPPER

HAND NAILING MACHINE



Self feeding. No time lost in keeping full.
Adjustable. Handles all size nails from 2 d. to 10 d.
Handiest. Lightest. Weights only 8 pounds.
Closes like a suitcase.
Price, \$10.50.

PAPER HOLDER



All packers realize the enormous waste of paper occasioned in the wrapping of fruits by the non-use of paper holders.

We guarantee this holder will save its price in time and paper.

Most convenient. Automatic and non-breakable.

Price, \$1.50; postpaid, \$1.60.

PRUNERS

SEARIGHT—This has a compound lever head and is made with a hook and side lever. It is calculated for heavy work and will cut a limb up to 1½ inches in diameter. Instead of running the rod connecting the knife lever along one side the pole to a handle lever, the handle lever has been placed on the opposite side, which allows the rod to cross the pole. As a result one-half of the strain is thrown on one side of the pole and one-half on the other, which gives about double strength.

The strength, durability and easy cutting qualities of these trimmers will appeal to both the merchant who handles them, and the man who may have the pleasure to use them.

Price, 10 ft., \$2.75.

Price, 12 ft., \$3.00.



No. 1

Searight

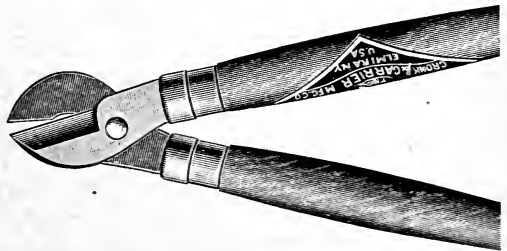


Waters' Improved

WATERS' IMPROVED—Indispensable in pruning tall trees. Cannot go by mail. Purchaser will have to pay freight or express charges. Price, 6 ft., \$1.75; 8 ft., \$2.00; 10 ft., \$2.10; 12 ft., \$2.25. Extra blades, 25c each.

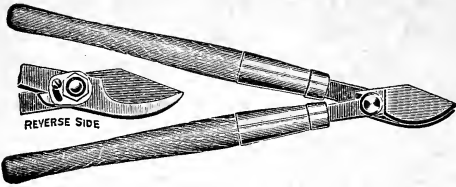
WATERS SPECIAL—This Pruner is made on the same principle as the Waters' Improved, but is much stronger in every way, being designed for use where the regular Waters' Improved was too light to stand abuse. The hook or head of the Waters' Special is made of malleable iron, having ribs on the outside giving it great strength; it also laps around the pole about two inches farther down than the Waters' Improved. The knife or blade is made of heavier steel and is fitted with a strong coil spring that carries the blade back so it is always in a cutting position. Price, 6 ft., \$2.50; 8 ft., \$2.65; 10 ft., \$2.85; 12 ft., \$3.00; extra blades, 30c each.

Cronk's Wood Handle Pruning Shears



Steel ferrule. Notched hook (patented), prevents slipping, gives greater leverage, and makes cutting easier. No. 9½, 26 inches. Weight, 3 lbs. Price, \$1.25; add postage.

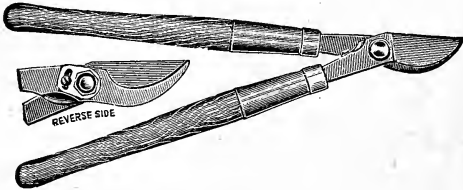
We handle only high grade
seeds



FRESNO PATTERN NO. 126—Forged from high grade tool steel, finely tempered. Solid wrought steel ferrule. Has lock nut and can not work loose and ruin the shears. Riveted handle. Strictly high grade and has no equal.

26 inches, weight 3 lbs. Price, \$2.25.
30 inches, weight 4 lbs. Price, \$2.50.

Add postage.



CRONK'S EXTRA HEAVY NO. 226—Forged from high grade tool steel and finely tempered, wrought steel ferrule polished. Has the Cronk patent locknut and can not work loose and ruin the shears. Riveted handle.

26 inches, weight 3 lbs. Price, \$2.50.
30 inches, weight 4 lbs. Price, \$2.75.

Pruning Compound



For use on trees, shrubbery, etc., to stop bleeding of sap after pruning, and prevent worm-boring. Used extensively by large nurseries and fruit growers.

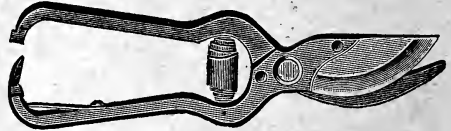
It effectually seals the surface and adheres satisfactorily to surfaces which are moist with sap, and will not wash off with the weather. In

every respect it will be found more satisfactory than tar and other mixtures.

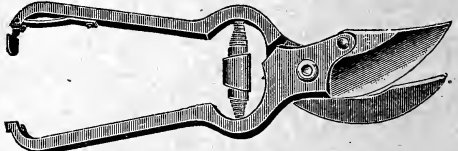
Directions: Best results are obtained by applying Pruning Compound at the time pruning is done. Quarts, 75c; gallon, \$2.25. Not mailable.

Grafting Wax

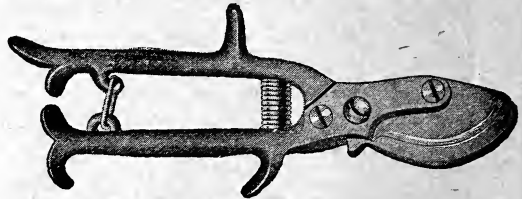
One-fourth lb., 20c, postpaid, 25c; one-half lb., 30c, postpaid, 35c; 1 lb., 45c, postpaid, 55c.



17—Length, 9 inches. Detachable polished tempered steel blade. Price, \$1.00; postpaid, \$1.05.



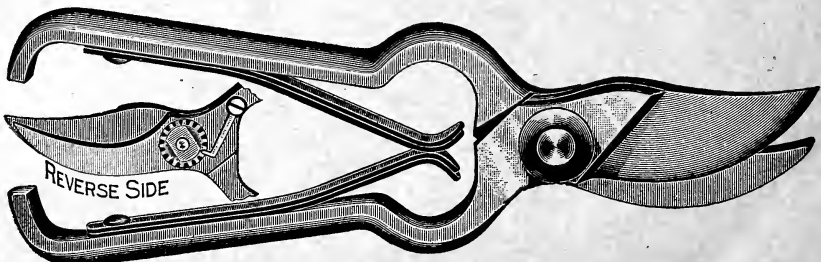
27—Length, 9 inches. Detachable blade of cutlery steel. Notched hook, forged from tool steel, full polished and tempered. Price, \$1.50; postpaid, \$1.55.



No. 200—Henry pattern. Cast handles. Steel blade. Length, 8½ inches. Price, 50c; postpaid, 55c.



600—Forged from best cutlery steel, full polished, 8½ inches. Price, \$2.25; postpaid, \$2.30.



No. 700—Ratchet nut. Brass spring. Extra quality steel. Length, 8½ inches. Price, \$3.00; postpaid, \$3.05.

GRAPE OR THINNING SHEARS



101—Length, 6½ inches. Made extra heavy. Price, 60c; postpaid, 65c.

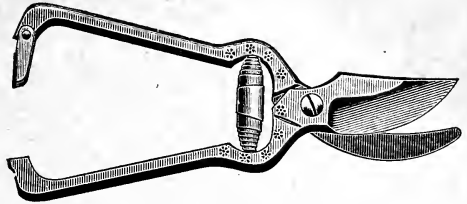


203—Same as 101 but longer and has volute spring. Price, 75c; postpaid, 80c.

SPRINGS

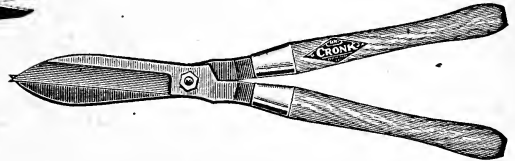
Volute springs for hand prunes. Each, 15c.
Volute springs for thinning shears. No. 203. Each, 15c.

ROSE SHEARS



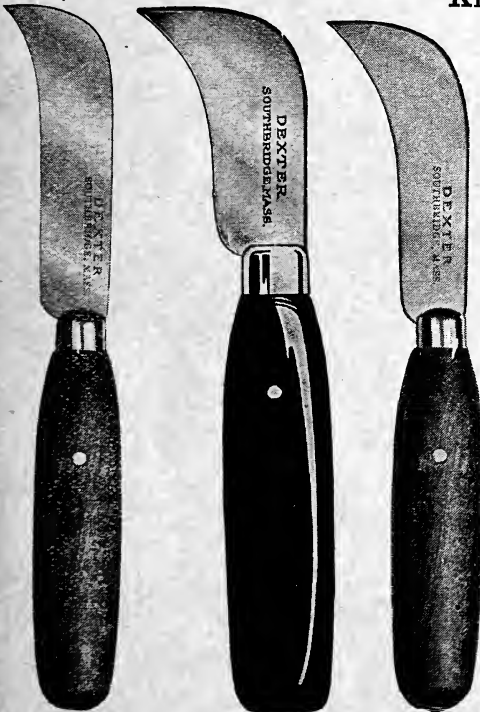
250—Forged from best cutlery steel. Nickel plated, 7 inches. Price, \$1.25; postpaid, \$1.30.

Shears



HEDGE—Polished tool steel blades; polished hardwood handles; cut 8 inches. Notched in order to cut larger branches. Price, \$2.00; postpaid, \$2.10.

Knives



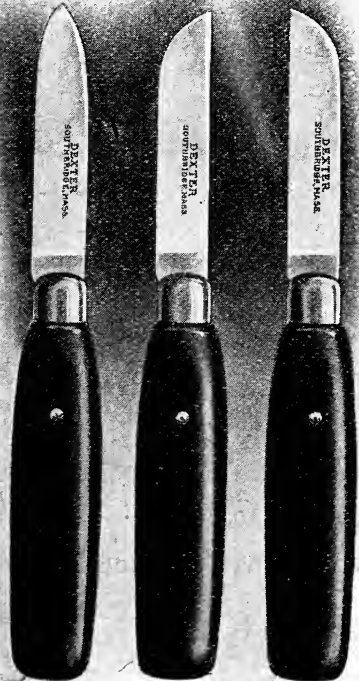
PX38

PX761

PX2HS

PX38—60c; postpaid, 65c.
PX761—50c; postpaid, 55c.
PX2HS—60c; postpaid, 65c.

All of the blades are made from a very high grade English crucible tool steel; they are given the proper temper for the particular work required; they all are ground sharp and hand honed, leaving them ready for use. The handles are oval rubberoid of a shape to fit the hand. The ferrules are of heavy construction, oval, nickel plated, and the blades are pinned in handles, preventing any possibility of their coming out or becoming loose.



2 1/2 V

2 1/2 J

2 1/2 Z

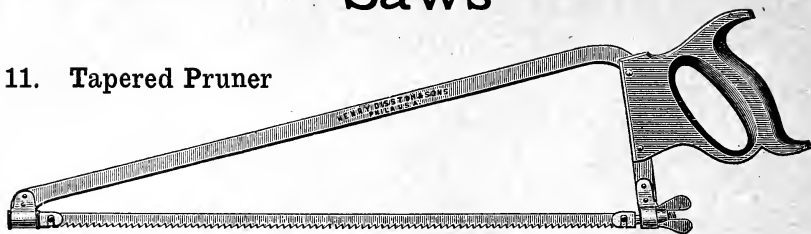
Grafting, No. 2 1/2 V—50c; postpaid, 55c.

Budding, No. 2J—50c; postpaid, 55c.

Budding Spear, No. 2 1/2 Z—50c; postpaid, 55c.

Saws

No. 11. Tapered Pruner



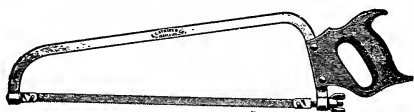
We have selected the following saws because they are the highest grade saws we could procure. Please note that they are all made of the finest quality of Silver Steel.

In common with other manufacturers, E. C. Atkins & Co. make these same saws in different grades. The different grades of saws are made from different grades of steel.

The prices are higher than the ordinary saws offered for sale, but they are considered the most economical and best to use, because of the better service they render.

This is a very strong, rigid and popular style of saw. The frame is tapered so as to reach out of the way spots. It is made of high-grade crucible steel, $\frac{3}{4}$ of an inch wide and 3-16 of an inch thick. The blade is 16 inches long and is fastened to the frame by a turnbuckle arrangement so that the blade may be used at any angle. Price, \$2.00; postpaid, \$2.10. Extra blades, 30c.

No. 10. Tapered Pruner



The frame is made of extra high quality spring steel, $\frac{5}{8}$ of an inch wide and $\frac{1}{4}$ inch thick. It is 17 inches long. The blade is extra high-grade quality Pruning Saw steel, 16 inches long. The handle is ATKINS new easy grip pattern and is in popular favor wherever used. It is made of beechwood thoroughly seasoned, highly finished and polished on the edges, fastened to the frame by two brass screws. The blade is adjustable so that the Saw will cut at any angle. Price, \$2.25; postpaid, \$2.35. Extra blades, 30c.

No. 3. Duplex Pruner



The blade is made of the finest quality Silver Steel and will receive a remarkably sharp cutting edge and retain it for the longest possible time. The handle is made of thoroughly seasoned applewood, highly polished and finished. Length, 18 inches. Price, \$1.75; postpaid, \$1.85.

No. 1. Atkins Table and Pruning Saw

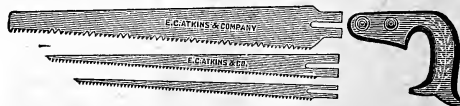


This is one of the older patterns and is still in popular favor in many sections of the country. The blade tapers from 2 $\frac{1}{2}$ inches to 1 inch, and is made of genuine Silver Steel. The finest steel that has ever been used in saw blades. The handle is of hardwood, finely finished, polished edge. Blade is 18 inches long. Price, \$1.50; postpaid, \$1.60.

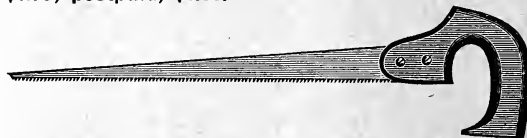
No. 13. California Pruner



This saw is used almost exclusively for pruning grape vines. The blade is of the finest quality Silver Steel which is superior to any other saw steel. The curved blade makes cutting easy. The handle is of highly finished applewood. Blade is 14 inches long. Price, \$1.25; postpaid, \$1.35.



We recommend this set for general purposes. It consists of a keyhole, compass and pruning saw blade and handle as illustrated. Price, \$1.75; postpaid, \$1.80.



No. 4—Saw screws, beech handle, varnished edge. 12 and 14 inch lengths. Price, 50c; postpaid, 60c.

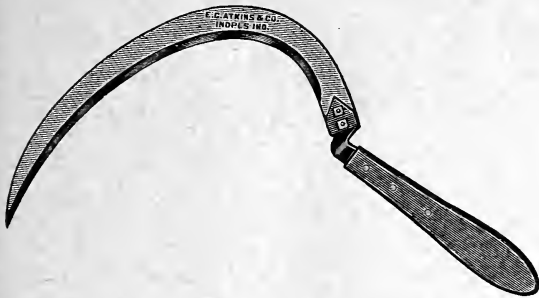
Labels

		100	500	1000	Weight per 1000
Pot, Plain	4x $\frac{5}{8}$	.20	.75	1.25	5 lbs.
Pot, Plain	5x $\frac{5}{8}$	.20	.90	1.50	6 lbs.
Pot, Plain	6x $\frac{5}{8}$	.25	1.10	2.00	7 lbs.
Pot, Plain	8x $\frac{5}{8}$	.35	1.50	2.75	12 lbs.
Pot, Painted	5x $\frac{5}{8}$	.25	1.10	2.00	6 lbs.
Pot, Painted	6x $\frac{5}{8}$	.30	1.40	2.50	7 lbs.
Pot, Painted	8x $\frac{5}{8}$	.40	1.90	3.50	12 lbs.
Tree, Unwired	4x $\frac{5}{8}$	.20	.75	1.25	5 lbs.
Tree, Iron Wired	3 $\frac{1}{2}$ x $\frac{5}{8}$	.25	1.00	1.75	4 lbs.

Add postage.

Prices on labels are not guaranteed, as manufacturers would not quote us on account of not having any stock on hand.

Atkins Perfection Grass Hook



The blade is of Silver Steel and will hold its edge much longer than the material usually placed in similar tools. It is extremely light and does not tire the wrist. Fitted with a hardwood, easy grip handle, securely fastened to a malleable casting by strong rivets. The curve of the blade is such that the entire cutting edge is constantly in use. Corners and out-of-the-way spots may be easily reached.

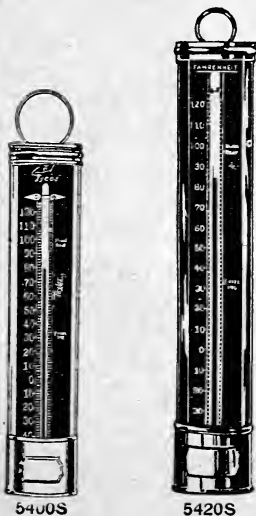
The handle being offset, saves the knuckles from becoming bruised. Price, 75c; postpaid, 85c.

GRASS SHEARS—For trimming ground, flower beds, etc. Weight, 1 lb. Each, 75c; postpaid, 80c.

Beeswax

Price, 60c; postpaid, 70c.

Greenhouse Thermometers



5400S

5420S

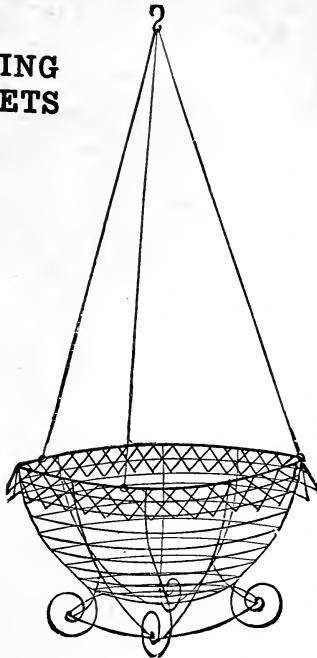
No. 5400S—Standard grade, 10 inches, black japanned, heavy tin case. Spirit. \$1.75; postpaid, \$1.85.

No. 5420S—Selected grade, 10 inches, black, japanned tin case. Spirit. \$1.00; postpaid, \$1.10.

Raffia

Natural color, for nursery work. Price, lb., 50c; postage extra.

WIRE HANGING BASKETS



Painted Green.

You no doubt have noticed that most of the hanging baskets on the market have the parallel wires on the sides laced to the ribs by means of a very light lacing wire. This wire soon rusts out, and then the basket falls to pieces.

Please note the construction of the basket here shown and you will readily see that the different wires are electrically welded together, thus forming a solid construction, making all parts equally durable, and thus making it impossible for it to fall apart.

12-inch, each, 75c; 1/2 doz., \$4.00; doz., \$7.50.

14-inch, each, 90c; 1/2 doz., \$5.00; doz., \$9.50.

Mailing weight, each, 10 and 12 inch, 2 lbs.; 14 and 16 inch, 3 lbs.; add postage.

Hot Bed Thermometers



No. 5981—Standard Grade, 16 inches, wood frame with handle, brass pointed ferrule, brass oxidized scales, white filled figures and graduations. \$2.50; add 10c for postage.



No. 5982—Medium Grade, 14 inches, wood frame with handle, brass pointed ferrule, glass cylinder, hand written paper scale. \$1.50; add 10c for postage.

We use the utmost care in packing all glass-ware, and will not be responsible for its arrival in good condition.

INCUBATORS

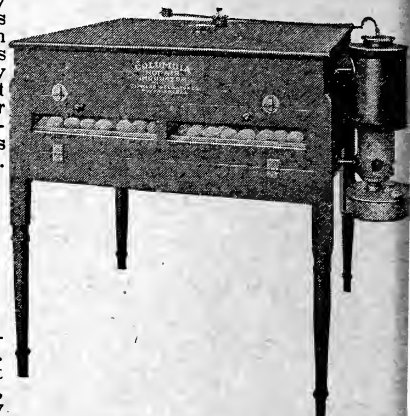


Standard Cyphers Incubators

These are machines that for nineteen years and more have been recognized as the "Standard hatchers of the world." Tens upon tens of thousands of them have been sold and are in successful use in every civilized country on the globe. They are used by more Government Experiment Stations, more large, practical poultry plants, on more successful duck and egg farms, and by a larger number of foremost poultry breeders than all other makes combined. They are the last word to date in incubator building, not a penny being spared anywhere in their construction to make sure of their doing satisfactory work in all climates, under widely different conditions, in the hands of all sorts of people. They are built to hatch and to last. With ordinary care they should last an ordinary lifetime. Every Standard Cyphers Incubator is guaranteed by the manufacturers to do first-class work in the hands of every purchaser who will give it a fair trial. 244 eggs, \$45.00.

Columbia Hot-Air Incubators

Are built to meet the wide-spread demand for large capacity lamp-heated machine that can be sold at surprisingly low prices and yet be guaranteed to do high-class work. Have wooden cases, attractively finished in dark green, with brass trimmings and double walls. Seamless-bottom lamp bowls, best quality brass burners, zinc and steel Standard Cyphers toggle-joint thermostat and same regulating equipment as used on higher priced machines. Fume-proof, forced draft heater, asbestos covered and metal banded. Automatic in ventilation and embodies diffusive principles. Roomy chick nursery under egg trays. Made in two sizes. 140 eggs, \$22.50; 250 eggs, \$30.00.



Superior Hot-Water Incubators

These machines are exactly what the name says. They are heated by hot water, instead of hot air, and are "superior" in every detail. The water boiler and tank (tubular) are of heavy weight copper. Lamp has seamless bowl; burner is best on market. Incubator case is of wood, attractively finished in golden brown, with brass trimmings and has double walls, with air space insulation. Are equipped with Standard Cyphers zinc and steel toggle-joint thermostat and knife-edge regulator. Have forced water circulation and are automatic in ventilation. Roomy chick nurseries. 130 eggs, \$25.00.

Only a limited supply of Cyphers Incubators on hand and will not have any additional supply this season.



Queen Hot Water Incubators

During the past years hot air heated incubators have been the leaders. At the present time most of the leading poultry men have turned to hot water heated incubators, and to meet this growing demand we have put in stock the well-known Queen Hot Water Incubators.

The demand for these have grown to such an extent that we are shipping in a straight car.

Queen Chicks Live and Grow

Queen Incubators are famous the country over for big hatches of strong, healthy chicks that live and grow. The Queen is accurately regulated, keeping the temperature just right for the hatching chick. No hot and cold changes to weaken the chick's system. The Queen is properly insulated—two layers of wood and one of corrugated strawboard, with dead air space. This also helps to maintain an even temperature for the entire hatching period. Both Queen walls are built of genuine California Redwood.



The Queen Hot Water System

Eliminates the injurious drying out tendency found in most hot air incubators and provides a soft, uniform heat over every part of the egg chamber that is most natural for the hatching eggs. This form of heat under ordinary conditions makes unnecessary the application of moisture, because in the Queen the circulation of water through the radiator neither adds nor takes away the moisture, and air is supplied to the eggs in a natural form as under a mother hen.

Insulation—Or Keeping the Temperature Even

Insulation is what keeps the water in the Thermos bottle hot or cold, whichever it may be. It is packing that prevents the easy entrance or escape of heat.

Good insulation means a proper maintenance of uniform heat throughout the hatching period, less fuel and stronger chicks. Poor insulation means a fluctuating temperature, more fuel and weak chicks.

The Queen is doubly insulated. First, double walls of California redwood is used, thus forming a dead air space. Second, corrugated straw-board is used between the wooden walls.

Boiler and Radiator

Of the Queen heating system is made of copper (not copperized tin) that has been rolled into sheets without heating, which gives added life, strength and ability to stand more wear and tear than the ordinary sheet copper, and is placed close to the inner top of the incubator. This form of placing allows the heat to reflect from the floor of the egg chamber and to more evenly affect the germ which always rises to the upper surface of the yolk.

Heat Regulation

This is a vital factor in incubation, for an incubator must not only be supplied with heat, but it must have exactly the required amount at all stages of the hatching period. In other words, the source of heat must be self-regulated and sure.

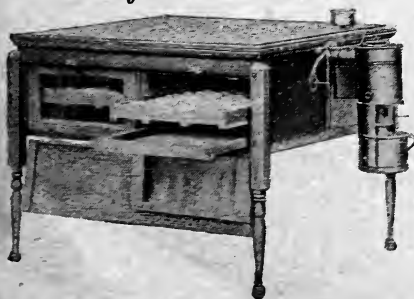
Why Redwood Is Used

California redwood is conceded by all to be the best wood for incubator construction, as it will not warp, split, nor absorb moisture or odors during use. It is a wood that insects seldom attack, because of an acid element the lumber contains, and being free from pitch, offers strong resistance to fire.

Sizes and prices:

- No. 1—85-egg size, \$26.50.
- No. 2—135-egg size, \$39.50.
- No. 3—180-egg size, \$45.00.
- No. 4—275-egg size, \$57.50.
- No. 5—400-egg size, \$67.50.
- 600-egg size, \$110.00.
- 800-egg size, \$140.00.
- 1000-egg size, \$180.00.

Style K Incubator



- No. 20—70-egg size, \$17.50.
- No. 21—130-egg size, \$29.50.

Style K is made by the Queen Incubator Co., but is not of the same high standard as the

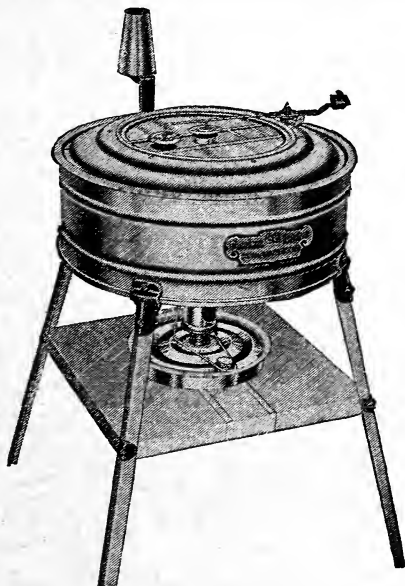
Queen line, in material nor workmanship, nor do they embody all the principles that have made the Queen line so successful and famous.

However, they are good, substantial machines, built to sell at a lower price to people to whom price is an important consideration.

Style K Incubators are constructed of double-wall redwood. The top of the machine is relined with insulation. The heater and pipes are made of aluminum. The machine is equipped with the same expansion cup and thermometer as the regular Queen.

The regulator is the same as the Queen, except of lighter construction, and has a three-inch steel wafer.

The Peerless Automatic Incubator



Small enough to give the greatest efficiency in hatching. Large enough to give the greatest economy in operation. Cheap enough so that any man or woman who wants to make money in poultry can afford it.

HEAT, MOISTURE, VENTILATION, ALL AUTOMATIC.

We all know the important connection between heat, moisture and ventilation in an incubator. To preserve an even and constant balance between these three vital features has been the great problem among incubator manufacturers.

The heating system is a masterpiece of simplicity. The heated air is conveyed upwards through the egg chamber to the heat distributor. The heated air from the lamp never enters the egg chamber directly.

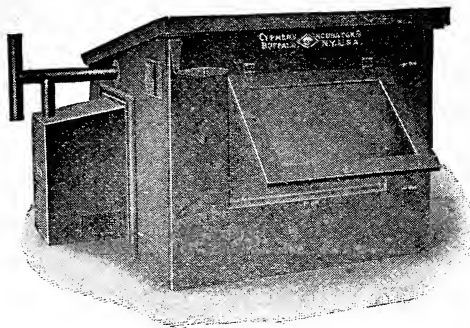
Moisture is supplied by an open water jacket which surrounds the heat flue. Thus center heat is eliminated and it is an absolute fact that the inside of the egg chamber is not a fraction of a degree warmer at the heat flue than at the center or outer edge.

The action of the regulator is governed by the expansion and contraction of a sensitive double wafer thermostat. There is only one adjustment—just simply turn the single adjusting screw and you set the thermostat.

The entire egg chamber is reached by simply lifting off the top and placing it on the holder provided for it.

Made entirely of metal with the exception of the glass top, through which the entire interior of the machine can be inspected without opening it. The thermometer rests just above the eggs and is plainly visible. Capacity, 66 eggs; price, \$9.50. Will not go by mail.

Style A Outdoor Brooder

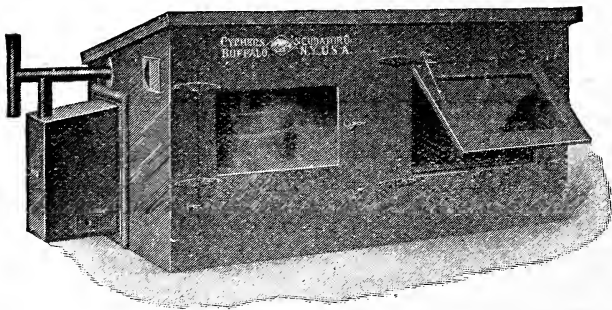


Dimensions: Floor space, 32x22 inches; height, 32 inches in front, 24 inches at rear. Capacity 75 newly hatched chicks. Price, \$20.00.

The Style A Outdoor Brooder is recommended for use of poultry raisers who feel that they do not wish to invest in the larger sized and more costly three apartment outdoor brooders. The Style "A" is equipped with the Cyphers Fire-Proof Brooder Heater and Standard Adaptable Hover. Top heat is used exclusively, thus giving the chicks free use of all space underneath the hover. The Adaptable Hover is self-regulating and self-ventilating, and provides a constant supply of fresh, warmed, pure air beneath the hover for the little chicks.

The double frame door of this brooder is of great convenience to the operator—the sill being on the level of the floor makes cleaning easy—while ample ventilation is secured, at the same time preventing rats, cats and other chick enemies from gaining access to the brooder. The outer door, hooked up part way, allows ventilation and prevents rain beating in.

Style B Outdoor Brooder



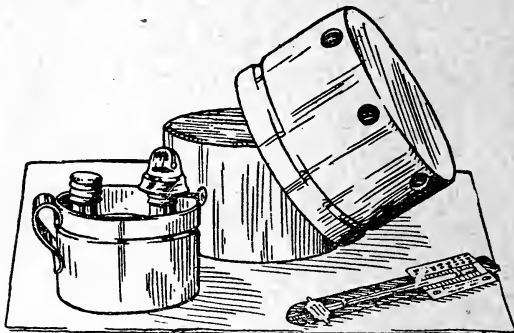
The Style B Outdoor Brooder has all the favorable features found in the Style A, and in addition has a large exercising apartment, thus securing twice the floor space.

The Style B Brooder has the exercising apartment separated from the hover apartment by a partition. A small chick door in each end of this partition does away with four corners. Each door is covered with a slitted felt curtain, thus keeping drafts out of the hover apartment, while for night use a wooden door will close the opening.

Dimensions: Floor space, 32x62 inches, 32 inches in front, 24 inches in rear. Capacity, one hundred newly hatched chicks. Price, \$25.00.

Common Sense Brooder Fixtures

To those who wish to make their own brooders, we highly recommend the "Common Sense" Brooder Fixtures. These fixtures include an upper and lower drum, Inland Safety Lamp and Thermometer. The construction of the brooder is simple and the air circulation perfect. For outdoor use the walls should be double and the roof included and covered with roofing.

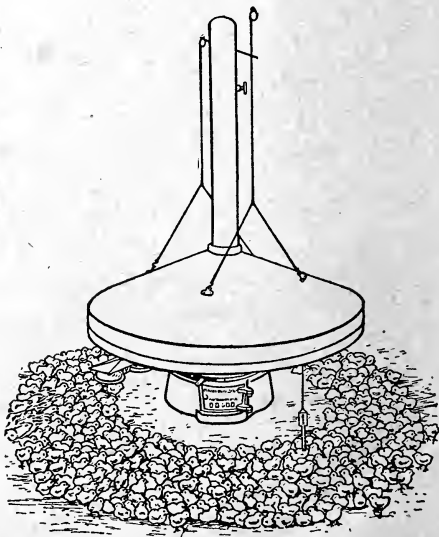


Top Removed, Showing Location of Hover and Heat Retainer

Manner of Construction—First, put in a tight floor $9\frac{1}{2}$ inches from the bottom of brooder. Then mark and saw out size of larger drum on this floor (using drum as pattern), 12 inches from center of side of brooder to center of drum. Secure drum in place, then nail one-inch cleats two feet square under and around the drum, cutting out a two-inch hole from cleat and side of brooder to allow air circulation. Nail the lower drum up on these cleats. Bore sufficient holes through two sides of brooder, under this floor, to carry off fumes and furnish air for lamp. For the hover nail thin boards together, making it two feet square. Around this tack oilcloth wide enough to reach floor when hover rests on drum. Set the lamp under center of drum. Price, \$5.00.

HOVERS

Cyphers Coal Burning Colony Hover



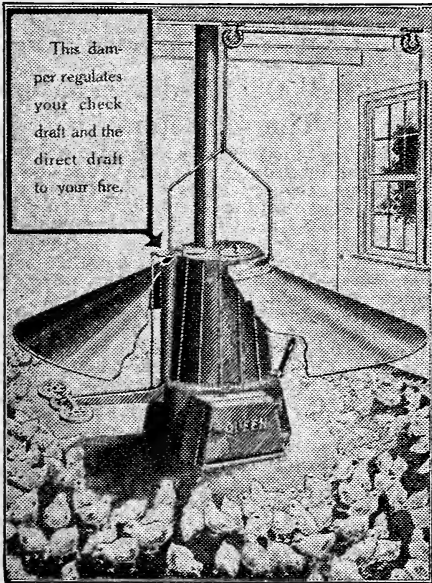
The latest development in the brooding of chicks. Will brood 500 chicks in one flock, thereby reducing to the lowest point the time, labor, and cost of raising fowls.

THIS HOVER COMBINES THE BEST that twenty years of poultry experience, coupled with more than fifty years of stove-building experience have accomplished to date. It is remarkable for its simplicity of design and ruggedness of construction. The fire pot is a one-piece, heavy-weight casting of ample capacity. The ash pit and heater base are also cast in one piece—therefore is fire-tight. Automatic regulator is provided, insures continuous, reliable heat for the growing chicks.

There is nothing about the entire device to give way or break easily, or to get out of order. It is as easy to operate as a kitchen range and can be relied upon to do the work for which it is intended.

Prices—capacity 500 chicks, \$22.00.

QUEEN BROODER STOVES



The Queen Brooder Stove is just what is needed to keep the house comfortable for the early chicks. It is the only Brooder Stove in which both fire and amount of heat are automatically controlled by one thermostat, and one connecting rod.

Damper indicated by arrow regulates the check draft and the direct draft to the fire. Gas controlled above deflector. No gas can escape below to injure chicks. Holds enough coal to last 40 to 48 hours.

The Queen Is the Only Brooder Stove With Automatic Control of Both Check and Draft.

The Queen Colony Brooder Stove is made of highest quality iron castings that will wear and last indefinitely.

DRAFTS—There are no drafts on the smoke pipe of the Queen. The check rests on top of the stove and opens outward when fire is too warm, thus giving a gentle inflow of air to retard the heat. While the opening of the draft to increase the fire is located at the top of the stove, it opens into the fire at the base through an opening extending down the side to the bottom.

GRATE—Next to a good draft through the chimney, the principal secret of a good fire in any stove is a good grate that will free the fire from ashes properly and prevent clinkers. The grate in the Queen Stove is the rocker type and strikes the fire at four points. This is far superior to any draw center or shaker grate, because it cleans the fire thoroughly, and by striking at four points will break up and remove all clinkers.

HOVER—The hover on Queen Stoves is collapsible and made of four pieces of galvanized iron. This hover comes knocked down, with holes punched and stove bolts attached, ready for putting together. By being collapsible, it enables you to save room when storing, and lessens the danger of damage, when not in use.

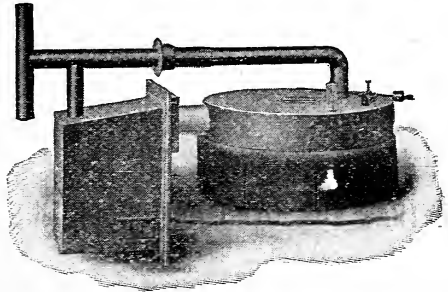
FUEL—The Queen burns any kind of fuel with equally satisfactory results. We recommend chestnut sizes in all kinds of fuel and hard or soft coal, coke, charcoal, or briquettes burn equally well.

GAS—There is no possibility of gas escaping below the hover to harm the chicks, because all drafts are located above the hover and are so arranged that all gas and smoke must go out through the smoke pipe.

No. 1—500 chick size, \$22.00.

No. 2—1000 chick size, \$28.00.

No pipes or elbows furnished with stoves. Pipes and elbows—50c each. Order as many lengths of pipe as you need, also elbow if needed, and add to price of stove.



The Cyphers Adaptable Hover is self-ventilating and self-regulating. It supplies a continuous flow of fresh, pure, warmed air under the hover, and at the same time maintains a steady, uniform heat. It is "adaptable" to use in colony coops, in portable houses, in home-made brooder coops, such as goods boxes, piano boxes, and organ cases, as well as in large brooding houses. It is constructed entirely of non-combustible material. Capacity, 75 newly hatched chicks. Price, \$12.50.



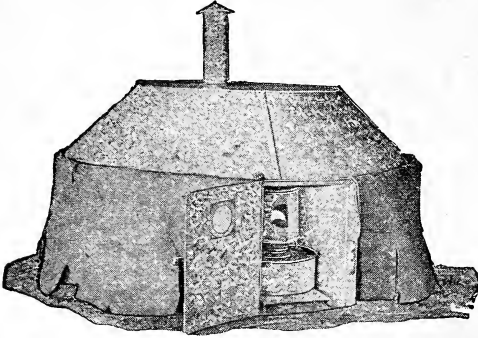
INTERNATIONAL PORTABLE—The great, distinctive features of the Sanitary Hover are that it is warmest at the curtain and that the center, being occupied by the lamp holder, is not available for the chicks to crowd in.

The International Sanitary Hover is the one perfect hover. The heat in it is not conducted through pipes and discharged at the center, but radiates downward from a ceiling warmest at the curtain.

Chicks hovered under the Sanitary Hover not only have no incentive to crowd to the center, but really have no center to crowd to.

To get at the lamp, just lift it out. To move the hover, just pick it up. To set up the hover, just set it down. Price, \$15.00.

Queen Perfection Hover



This is all that its name implies, and is of the same high standard as the Queen Incubator, and is the nearest to perfection of any hover that has yet been devised or put upon the market. Capacity, 150 chicks. Price, \$18.00.

EXTRAS FOR CYPHERS INCUBATORS

Arms, Wooden

For Nos. 0, 1, 2 or 3. Price, 25c; postpaid, 35c. These arms are all forwarded extra long; customers cut to fit machine.

Connecting Rods

For No. 0. Price, 35c; postpaid, 40c.

For Nos. 1, 2 or 3. Price, 40c; postpaid, 45c. Discs (tin) and wire, 15c each; postpaid, 20c. State size of incubator.

Egg Trays, Pedigree

Pedigree Trays are in demand by poultry raisers who use trap nests of various kinds for special breeding purposes. They are a valuable aid to systematic, scientific poultry breeding. By their use the eggs placed in a No. 0 or No. 1 Standard Cyphers Incubator can be kept in four separate lots; also the chicks that hatch therefrom, and the eggs in a No. 2 or No. 3 Standard Cyphers can be kept in eight separate lots, also the chicks that hatch therefrom.

Price, each, for No. 1.....\$3.25
Price, each, for No. 2.....3.50
Price, each, for No. 3.....3.75

Felts

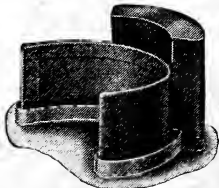
For No. 1, each.....\$0.65
For No. 2, pair.....1.00
For No. 3, pair.....1.25
Postpaid, 10c additional.

Flame Reducers

Each, 30c; postpaid, 35c.
State size of machine.

Moisture Device

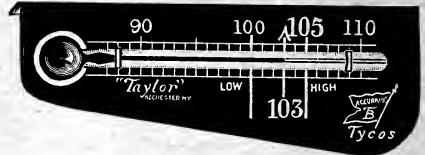
Cyphers Incubators are known the world over as non-moisture machines, where the surrounding atmosphere is in its normal condition. There are, however, exceptional conditions, existing in arid districts and in high altitudes of mountainous regions. The device is placed on the air chamber of the heater. Price, \$1.75; postpaid, \$1.85.



Thermostats

For No. 0\$2.00
For Nos. 1, 2 or 32.50
Add 10c for postage.

Thermometers



The best incubators and brooders manufactured are worthless unless the thermometers therein are correct. The thermometers here listed are guaranteed by the manufacturers to be thoroughly and expertly tested before they are offered to the public. Incubator Thermometers, \$1.15; postpaid, \$1.25.

"Tycos" Certified Incubator

Thermometers

With scale etched on the glass tube, so that, should the tube from any cause work loose on the mounting, the efficiency of the thermometer would not in any manner be diminished. Made in mercury tube only. Each, \$1.25; postpaid, \$1.35.

repaired.
Thermometers for adaptable hover \$1.25 \$1.35
Thermometers for portable hover 1.25 1.35
Thermometers for international hover 1.00 1.10
Thermometers for Queen Incubator 1.25 1.35
Thermometers for Brooders.....1.25 1.35

We pack thermometers and all glassware in as safe a manner as possible, but will not be responsible for their safe delivery, owing to the great risk of breakage.

EXTRAS FOR CYPHERS HOVERS

Arms, Wire

Each, 50c; postpaid, 60.

Connecting Rod

Each, 25c; postpaid, 30c.

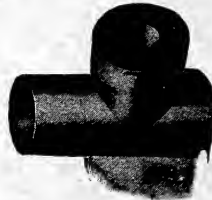
Disc and Wire

Each, 15c; postpaid, 20c.

Felts

Each, 75c; postpaid, 85c.

X-Ray Egg Tester



Brooder or
Hover Ther-
mometer.

It is designed for use on an ordinary hand lamp. In a dark room the light will be strong enough to penetrate the shell and illuminate the interior of the egg. Made in two sizes to fit No. 2 and No. 3 lamp burner. Price, 45c and 50c; postpaid, 50c and 55c.



LAMPS

Lamp complete, with burner and wick for No. 0 Cyphers Incubator, \$1.50; postpaid, \$1.60.

Lamp complete, with burner and wick, for Nos. 1, 2 and 3, Cyphers Incubator, \$1.75; postpaid, \$1.85.

Incubator Lamp, complete with burner and wick, No. 3 burner, $3\frac{1}{4}$ -inch diameter, $1\frac{1}{2}$ -inch wick. Price, \$1.75; postpaid, \$1.85.

Incubator Lamp, complete with burner and wick, No. 2 burner $2\frac{1}{2}$ inches in diameter, 1-inch wick. Price, \$1.50; postpaid, \$1.60.

Brooder Lamp, complete with burner and wick, No. 3 burner, $3\frac{1}{4}$ inches in diameter, $1\frac{1}{2}$ -inch wick, chimney $3\frac{1}{4}$ inches by 7 inches. Price, \$2.00; postpaid, \$2.10.

Brooder Lamp, complete with burner and wick, No. 2 burner $2\frac{1}{2}$ inches in diameter, 1-inch wick, chimney $2\frac{1}{2} \times 6$ inches. Price, \$1.75; postpaid, \$1.85.

Brooder Lamp, complete with burner and wick, No. 32 burner, chimney $3\frac{1}{4} \times 3\frac{1}{4}$ inches, wick 1 inch. Price, \$2.00; postpaid, \$2.10.

The Inland Safety Brooder Lamp requires no chimney; never smokes, and burns a steady flame. The air fingers carry fresh air direct to the flame. This gives perfect combustion and more heat for a given amount of oil than with any other burner. Top of lamp is made to hold water, and it is essential to keep water there owing to heat being reflected back upon the lamp. Weight, 2 lbs. Price, complete with burner and wick, \$2.00; postpaid, \$2.10.



Inland Safety
Brooder Lamp

Lamp Bowls

For Incubator or Brooder to take No. 3 burner. Price, \$1.25; postpaid, \$1.35.

For Incubator or Brooder, to take No. 2 burner. Price, \$1.15; postpaid, \$1.25.

Lamp Burners

No. 2 for No. 0 and No. 1 Cyphers Incubators. Price, 50c; postpaid, 55c.

No. 3 for No. 2 and No. 3 Cyphers Incubators. Price, 60c; postpaid, 65c.

No. 1 Zenith, no chimney, $\frac{3}{4}$ inch wick. Price, 60c; postpaid, 65c.

No. 2 Zenith, no chimney, 1 inch wick. Price, 70c; postpaid, 75c.

No. 32. $3\frac{1}{4}$ inch chimney, 1 inch wick. Price, 60c; postpaid, 65c.

Lamp Chimneys

Chimneys for No. 2 burners. Price, 40c; postpaid, 45c.

Chimneys for No. 3 burners. Price, 45c; postpaid, 50c.

Chimney, $3\frac{1}{4} \times 3\frac{1}{4}$ inches, for No. 32 burner. Price, 35c; postpaid, 40c.

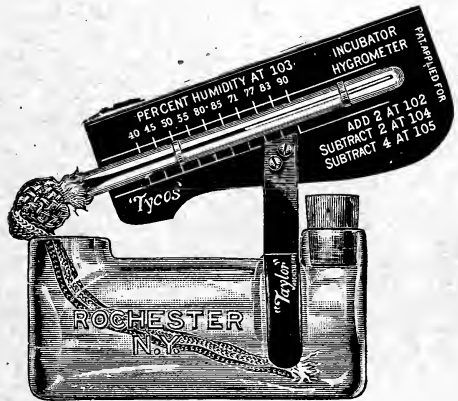
Lamp Collars

For No. 3 and No. 2 burners, 10c each.

Lamp Wicks

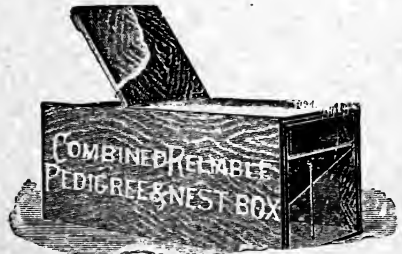
No. 1, 2, 3, 5c each; 50c dozen.

"Tycos" Incubator Hygrometer



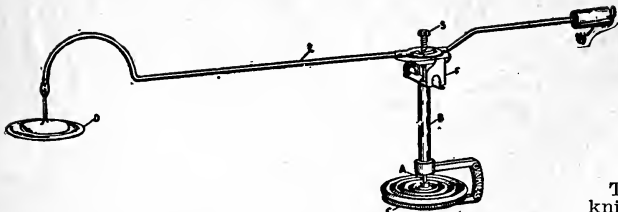
Millions of chicks die in the shell every year for the want of proper moisture conditions. The "Tycos" Incubator Hygrometer is not a regulator of moisture, but is an indicator of conditions, so that if not correct, they may be made so. Each, \$2.00; postpaid, \$2.10. Hygrometer Wicks, each, 20c.

The Reliable Pedigree Nest Box



The best and most successful breeders in the country are at present following the pedigree plan and using automatic nest boxes of some kind. They can be used either for pedigreering the stock or as an ordinary nest box. Weight, 3 lbs. Price, \$3.00; add postage.

Regulators



In this Regulator the wafer is inverted and as it expands it acts through the short lever beneath it on the connecting rod, and the down pull of the connecting rod so moves the top lever as to lift the damper. Accurate adjustment is secured through the adjustment nut and the upper end of the connecting rod. Weight, 1 lb. Price, \$2.50; add postage.

Wafer Thermostat



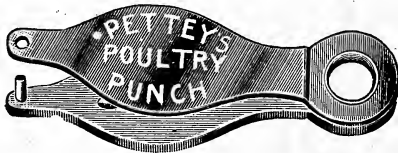
The Wafer Thermostat is made of two round concave discs, sealed together at the outer edge. The cavity between them is filled with a volatile liquid which is very sensitive to changes in temperature. Price, postpaid, \$1.00.

Champion Leg Band



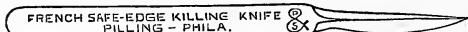
The oldest and most popular band on the market. This band is made in one piece, is adjustable to fit any fowl. They will stay where you put them. Held by double lock, it is impossible for them to lose off. Made of aluminum. Postpaid, 12, 20c; 25, 35c; 50, 60c; 100, \$1.

Petty's Poultry Punch



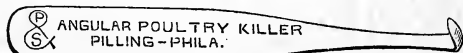
Latest, most convenient Poultry Punch: will not clog. Thoroughly practical. Postpaid, 25c.

SAFE EDGE KILLING KNIFE



Exactly same as French Killer except cut on one side only. Price, 65c; postpaid, 70c.

Pilling Angular Killing Knife



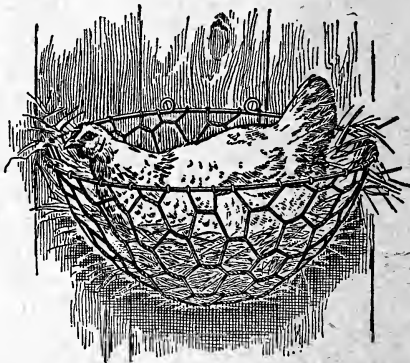
By simply turning the wrist the juglar vein and spiral cord are cut, thereby bleeding the fowl, allowing the feathers to be removed without using water. Price, 65c; postpaid, 70c.

New Philadelphia Capon Set



This set has many admirers. It consists of a knife for making the incision; the spreader, for holding sides open; sharp hook, for piercing skin; the Lansdowne Remover, for removing the testicles. Cords with hooks for holding the bird. Cup forceps for removing any foreign matter. They are fine instruments of the best workmanship. Price, \$2.75.

Wire Nests



These nests are strongly made from heavy japanned steel wire. They are intended to be fastened to the wall with screws or screw hooks. There is no room on them for lodgment of lice or vermin of any kind; they are easy to keep clean and are far superior to wooden boxes.

Standard Size and Weight—Size, 13 inches in diameter; 7 inches deep; 1½-inch mesh; made of No. 19 wire. Each 25c; ½ doz., \$1.35; doz., \$2.50. Weight per ½ doz., 3 lbs. Add postage.

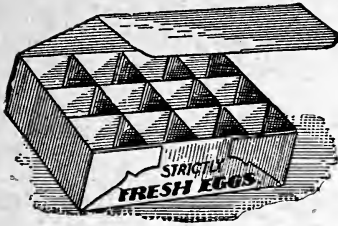
Nest Eggs



Medicated—Should be used the year around. Directions for Use—Don't expect one egg to rid your poultry and poultry house of lice. To realize the best results keep an egg in each nest for laying hens; in each coop for brooding hens and chicks, and enough to change about under setting hens. Weight, per doz., 3 lbs. Each, 5c; doz., 60c; add postage.

Porcelain—Weight per doz., 2 lbs. Price, doz., 35c; add postage.

EGG BOXES

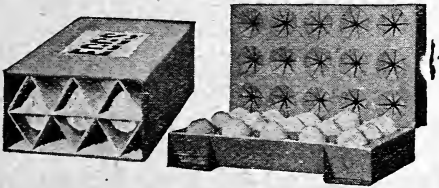


Paper—Intended for use in delivering eggs to private families. If you have a select egg trade you should use this box.

Square—Doz., 20c; package of 125, \$1.50; bundle of 250, \$2.75; 500, \$5.25; 1,000, \$10.00; add postage... Weight of 125, 15 lbs.

Long—Doz., 25c; package of 125, \$1.75; 500, \$6.50; 1,000, \$12.00; add postage... Weight of 125, 15 lbs.

Diamond Egg Boxes



The construction is simplicity itself. The eggs do not come in contact with the outer box, having a cushion on all sides, thus insuring safe transportation to a customer.

The one great essential in shipping eggs for hatching is to secure a package that will carry them to their destination safely. Hatching eggs are either forwarded by parcel post or express in either case they are subject to rough handling and must, therefore be packed in a container that will withstand the rough usage that they are subjected to.

We have given a great deal of consideration and very careful examination to the different packages on the market, and we have decided to handle the Diamond, even though we could secure other makes for much less price. We are not offering to compete in price with other makes, as we have the fullest confidence in the superior quality of the Diamond Egg Carriers.

The foregoing statements regarding quality refers in like manner to our Parcel Post Egg Boxes and our Day-Old Chick Boxes.

Read What Others Say Regarding Diamond Egg Carriers

Am shipping eggs to California and Oregon in your boxes and, best of all, am having satisfactory reports as to their safe arrival, etc. I shall continue to use your goods. Have tried out a number of boxes in order to find out which would really give me the best satisfaction in order that high class eggs from my yards might reach customers in the best possible condition. Have finally decided that the "DIAMOND" is the best box I have ever used.

We are very proud of them. I have some others, but they are not equal to yours, and just as soon as I need some more I shall send you my order. It is the most wonderful invention that I have ever seen.

JOHN W. WARD, Jr.
New Jersey.

I have used and sold egg carriers for nearly twenty years, and am satisfied this is the safest box I have ever seen. I stood on the box without damage to it. Pressure on the box causes no pressure on the eggs, a point no other box I am familiar with has. L. D. WRIGHT,
Iowa.

I am busy using the "Diamond" duck box and can say that it is certainly a dandy for the purpose. Have not received one complaint about eggs not getting to their destination safely and I have shipped as far as the states of Vermont and Washington. There is no way for them to get injured other than having a ten-ton safe fall on them. Would like to get a couple dozen more.

E. G. SHOWERS,
Onalaska, Wisconsin.

I have been using your DIAMOND egg boxes for some time with wonderful success. So far I have not had any complaint of cracked or broken eggs. Your egg box is not only a very clever idea, but it is an economy to the user for the reason that he is not constantly bothered with complaints and compelled to replace valuable hatching eggs, which may have been shipped in unsuitable cases. W. W. HARDER,
Washington.

Long Distance Egg Shipment

Some time ago Edward Davidson, breeder of Barred and Buff Rocks and Rouen Ducks, near Carey, received an order for eggs from Moscow, Russia, and asked the editor of the Record to assist in packing them for shipment. Although we had little hopes of their ever reaching Russia without being broken no matter how they were packed, we consented. The eggs were packed in Diamond egg boxes, made in Minneapolis, just as we had been packing eggs all through the season. A couple of months later Mr. Davidson received word that the eggs had arrived there safely—none broken. Here is an extract from the letter:

"I have much pleasure in notifying you that the eggs arrived very safely here, and I wish to thank you most heartily for the very prompt execution of the order and especially for the ingenious way of packing the eggs. On our Russian railways eggs are generally handled very roughly and breakages are a general thing, but in your lot not a single egg was broken. I dare say I will get some chicks though the eggs were on the way more than five weeks."

We believe this shipment establishes a new record for safe long distance egg shipments. It surely does if weight of package is considered.

The package referred to was one of the regular DIAMOND EGG CARRIERS for eggs for hatching, 15-egg size.

Price, 15-egg size, 25c each; 6 for \$1.40; doz., \$2.75.

Price, 25-egg size, 35c each; 6 for \$2.00; doz., \$3.50.

Price, 30-egg size, 40c each; 6 for \$2.25; doz., \$4.25.

Price, 100-egg size, \$1.15 each; 6 for \$6.50; doz., \$12.00.

Price, 12-egg size, duck, 30c each; 6 for \$1.75; doz., \$3.25.

Price, 12-egg size, turkey, 30c each; 6 for \$1.75; doz., \$3.25.

Price, 9-egg size, goose, 35c each; 6 for \$2.00; doz., \$3.75.

Parcel Post Egg Boxes

Capacity 1 doz., 25c each; 6 for \$1.35; doz., \$2.50.

Capacity 2 doz., 35c each; 6 for \$2.00; doz., \$3.50.

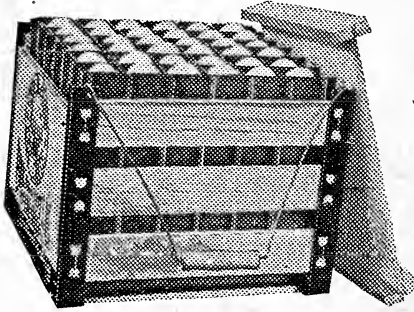
Capacity 4 doz., 50c each; 6 for \$2.75; doz., \$5.00.

Mailing weight of all egg boxes, 2 lbs. each; add postage.

Egg Cases

30-dozen case, with pasteboard fillers, 75c.
 Pasteboard fillers for 30-dozen case, 35c for 10.
 Pasteboard fillers, per case (for 12 30-dozen cases), \$3.25.
 Cases, K. D., each, 40c; 1/2 doz., \$2.25; doz., \$4.00.

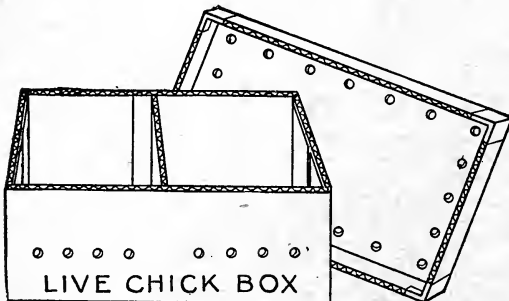
The "Steelbound" Egg Carrier



Frame is made of the best quality of sheet steel. Wood is fastened to steel by a patented process, making a light, rigid and practically indestructible carrier. Cover rests on steel frame and cannot be pressed down on contents of crate; it also fits into corners so as to brace the frame in all directions. Handles are made of steel spring wire, are fastened securely to steel frame so that they cannot work loose or come off; they lock together over cover and cover cannot be removed until handles are unlocked.

Crate holds twelve dozen eggs. Size twelve and one-half inches square by ten and one-half inches long. Weight, including fillers only, less than six pounds. Weight, filled with eggs or ordinary size, about twenty-two pounds. Price, 75c; add postage.

Shipping Boxes for Day-Old Chicks



These shipping boxes are well made of highest corrugated paper, which is very strong and durable. The construction of these boxes is such as to afford the greatest strength and stiffness, without unnecessary bulk of weight.

25-Chick Size—Each, 25c; 1/2 doz., \$1.40; doz., \$2.50; bundles of 25, \$5.00.

50-Chick Size—Each, 35c; 1/2 doz., \$2.00; doz., \$3.50; bundle of 25, \$7.00.

100-Chick Size—Each, 50c; 1/2 doz., \$2.75; doz., \$5.25; bundle of 25, \$10.50.

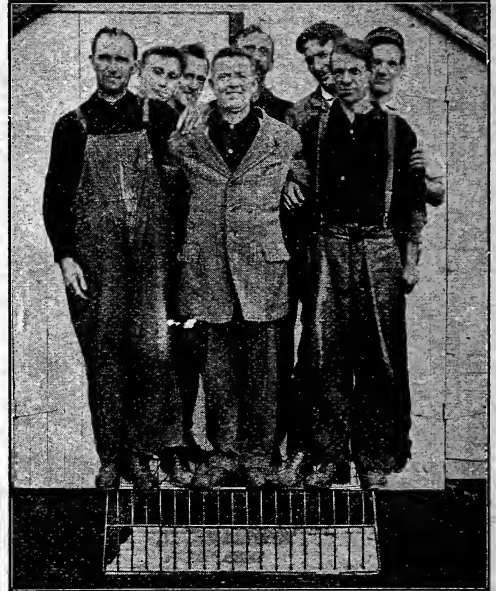
Weight per dozen boxes, 25 size, 7 lbs.; 50 size, 15 lbs.; 100 size, 23 lbs. Add postage.

Shipping Coops

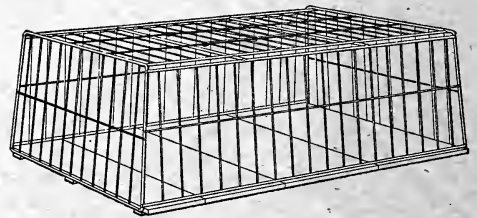
INLAND—All wood, neat, very light, but strong. Poultry raisers selling poultry at fancy prices should always use these coops.

No. 1—10x20, 50c; 1/2 doz., \$2.75; doz., \$5.00.
 No. 2—12x24x20, 60c; 1/2 doz., \$3.25; doz., \$6.00.
 No. 3—20x24x20, 70c; 1/2 doz., \$4.00; doz., \$7.50.

Clover Leaf Steel Shipping Coop



Actual Weight on Coop, 1194 Pounds.



This steel coop will outlast three wood crates and will save its cost each season in repairs and transportation charges.

It is made of galvanized steel bars and wire, and will not rust.

It is sanitary, as there are no holes or crevices in which vermin can breed.

It has a narrow mesh on top, which eliminates the possibility of the poultry poking their heads through and being killed.

Weights but 24 pounds, and never gets heavier with moisture.

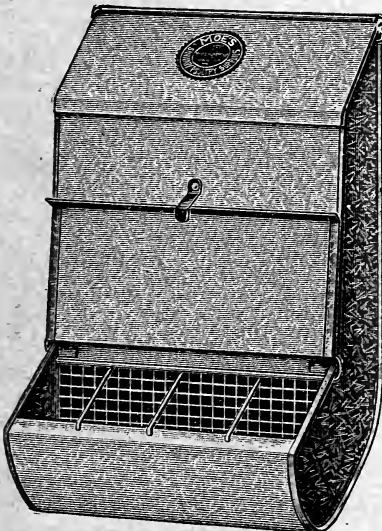
It is built on a taper, so that the coops will slide into each other, after removing the bottom. This feature is a great advantage, as the coop is not weakened by making it collapsible. The bottoms are easily and quickly detached.

Size, 27x41x13 inches. Price, \$4.75.

Size, 27x41x20 inches high, \$5.25.

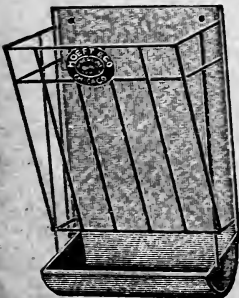
Inland Grit and Shell Box

The Inland Sanitary Feed and Shell Boxes work a material saving in grit, shell, bone, charcoal or poultry feeds. They are thoroughly practical, self-feeding, made of heavy galvanized iron. They are provided with a cover or lid, which protects the contents, and being placed at an angle furnishes a slanting top, preventing the fowls from roosting on the top of the box. Price, 3 compartment, \$1.25. Weight 3 lbs. Add postage.



INLAND DRY MASH HOPPER

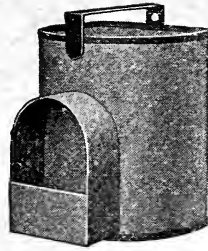
The curved bottom of the Hopper keeps the feed within easy reach of the birds. The gradual enlargement from the top to base prevents clogging. The wire grid and the wires running from the flange through the wire grid prevents any chance of the fowls throwing out or wasting the feed. The sloping cover prevents the birds from roosting on the Hopper, and when both covers are closed, it is rat and mouse proof. A trial will convince you that it is a hopper of the greatest merit. Manufactured of heavy galvanized iron. Weight, 4 lbs. Price, \$2.25; add postage.



Vegetable Rack.

Moe's Poultry Vegetable Rack

Manufactured from galvanized iron and wire. For feeding roots, beets, cabbage, sprouted oats, etc., a big time and feed saver. Every breeder needs one or more. Price, each, \$1.00. Weight, 2 lbs. Add postage.



Drinking Fountains

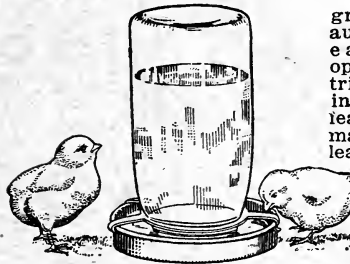
INLAND POULTRY FOUNTAIN — The back is flattened so that it can be hung on the wall or against an upright post or board at any height. As the bottom is also flat, it can be set upon the ground or on a raised board. Price, 1 gal., \$1.25; 2 gal., \$1.50. Weight, 1 gal., 3 lbs. Weight, 2 gal., 4 lbs. Add postage.

Drop Bottom Founts



28-gauge galvanized steel. Easiest thing in the world to open and clean. Clasp by which the bottom is fastened fits over the small hole under the hood, preventing slopping of water when the fount is handled. Solid brass hinge rod—no rust. Gal., \$1.25; weight, 3 pounds. 2 gal., \$1.50; weight, 4 lbs.; add postage.

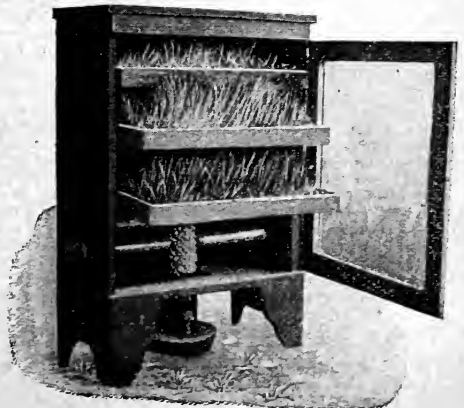
Automatic Fountain and Feeder



Feeds water, grain, grit, etc., automatically. Is easy to fill and operate. Just lift trigger, as shown in cut, which releases pan, clip remaining on jar, leaving pan without any obstruction, affording easy cleaning. Thus a sanitary fountain.

Made to fit any half gallon, quart or pint Mason jar. We do not furnish jars. Each, 20c; 1/2 doz., \$1.10; doz., \$2.00. Weight, per doz., 4 lbs.; add postage.

Reliable Grain and Oat Sprouter



Poultry needs green feed in one form or another. All experiments by individuals and agricultural colleges have found that oat sprouts are the best green feed that can be obtained for poultry.

You want the eggs when the eggs sell at the highest price. Green feed makes your hens lay.

The Reliable Grain and Oat Sprouter has an automatic sprinkler, which furnishes moisture.

Has a Moisture Receptacle, which catches the surplus drip.

Has circulation of warm air which passes all around and over each tray.

Has a regular oil heater to furnish sufficient warm air in coldest weather.

Is made of galvanized iron with large glass front.

Three trays will furnish sprouts for 50 to 75 fowls. Price, \$17.50.

Six trays will furnish sprouts for 100 to 150 fowls. Price, \$25.00.

Twelve trays will furnish sprouts for 200 to 300 fowls. Price, \$40.00.

Banner Root Cutters



No. 7

These excellent machines are so low in price that every farmer, stock raiser or poultry man should have one, as roots are the cheapest green feed for stock and poultry.

The Banner is substantially made of first-class material.

It cuts fast and is easy running. Leaves the feed in fine ribbon-like strips that make choking impossible. Fowls large or small can safely eat the feed. The knives are adjustable and made of the very best of steel. An iron grate in bottom of hopper lets dirt and gravel escape before reaching the knives. In this cutter we offer the poultrymen a low priced, high grade, nicely finished and mechanically constructed machine, and feel that anyone who desires to feed roots and vegetables to their flocks can well afford to own one. Two to five minutes will cut enough feed for a large flock of fowls. Price, \$8.50.

Weight, 50 lbs. Extra knives, 35c each.

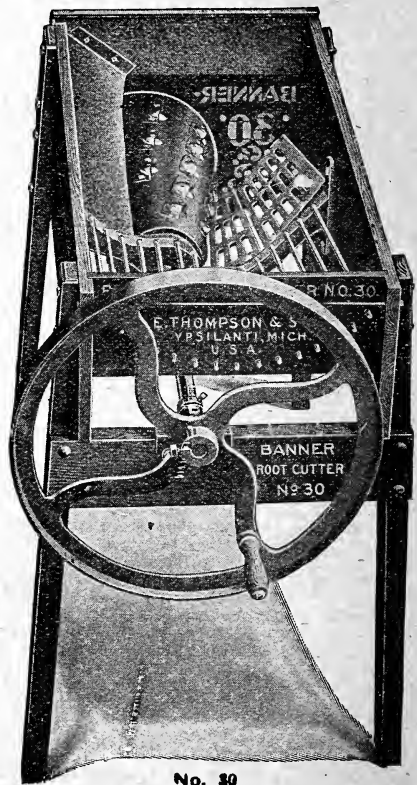
No. 20 is made for hand power and is the kind and style that meets with the largest sale, because most of the farmers who feed roots to



No. 20

stock want a machine that is run by hand. It has a capacity of 30 to 50 bushels per hour.

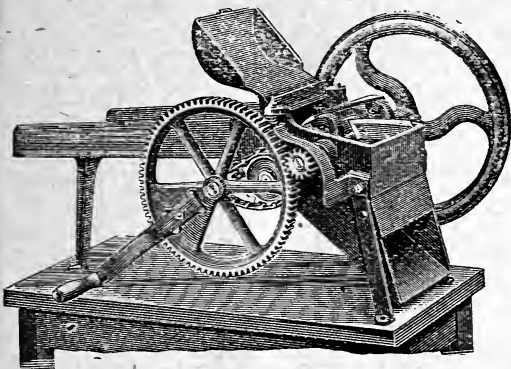
It is well built, nicely finished, runs easily, feeds itself, separates the dirt from the cut feed, and is supplied with the best steel knives. Price, \$16.50; weight, 120 lbs. Extra knives, per set of 20, \$1.75.



No. 30

A glance at the cut of No. 30 shows the large capacity of the hopper, 39 inches long, 18 inches wide and 18 inches deep at the lower or cutting end. The long drum with 30 knives attached. The gravity plant of the inside of the hopper. The open bottom with iron rods and open cutting grate allows dirt to escape without mixing with the cut feed.

Capacity, 1½ to 2 bushels per minute. Price, \$28.00. Weight, 190 lbs.

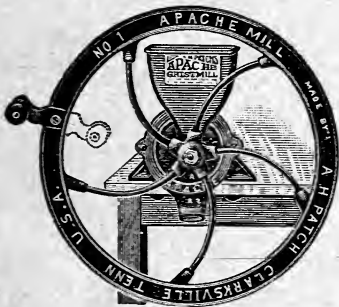
"New Model" Clover Cutter

The Model Clover Cutter is designed for cutting either green or dry, such growths as clover, alfalfa, vegetable tops, etc. These growths are the cheapest feed that can be secured.

The Model is made only of iron and steel from entirely new patterns. It is a strong feeder, has large capacity, runs unusually easy and will do perfect work indefinitely. Has removable and adjustable steel knives.

Price, with four 7-inch knives, \$20.00.

Price, with extended shaft and pulley for power, \$22.50.

Apache Mill

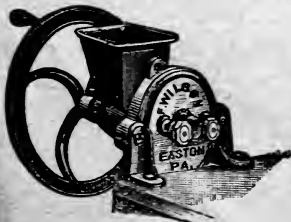
Grinding plates can be taken out easily for cleaning or replacing.

The handle can be set in two positions as shown, making a longer or shorter leverage as desired.

The light steel spokes make it possible to have practically all the weight of the fly wheel in the outer rim.

The Apache grinds all dry grains such as corn, wheat, rye, rice, coffee, spices, etc. Makes corn meal, hominy, chops, breakfast foods, etc. It will grind a quart of table meal in two minutes.

Large hopper, ball bearing. Weight, 40 lbs. Price, \$10.50; add postage.

The Wilson Dry Bone Mill

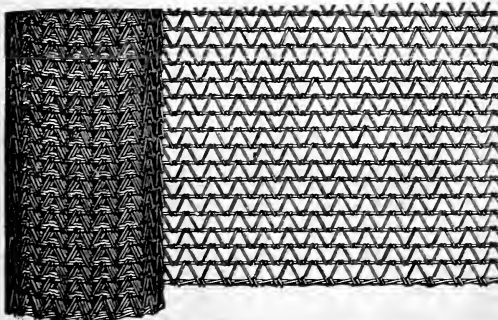
This is a practical mill, grinding all kinds of shells, crockery, grit, burnt or dry bone feed, etc. Instantly adjusted to grind coarse or fine. Weighs 33 pounds. Diameter of hand wheel, 20 inches. Price, \$7.50. Add postage.

Black Hawk Mill

WITH A BLACK HAWK MILL in the house you crack the corn and grind any kind of grain to whatever degree of fineness you desire or whichever will best suit the use or condition of your chickens. Its wide range of usefulness, its durability and small cost will appeal to the family in town with a small flock in the back-yard, and it has a large enough capacity to meet the needs of those in the country who keep poultry on a big scale. eight, 22 lbs. Price, \$4.25; add postage.

BLACK HAWK CORN SHELLER**A Sheller That Shells**

It can be set to shell any corn that grows. Made with ball-bearings, obviating the expense of a heavy balance wheel. Easily fastened to box by thumbscrews—no bolts nor screws required—no holes to be bored. Weight, 14 lbs. Price, \$3.50; add postage.

**U. S.****Special Poultry and Stock Fence**

U. S.

The U. S. Poultry Wire combines strength, durability and neatness of appearance. It is flexible, and readily adjusts itself to uneven surfaces without buckling. Stretches in firm, straight lines without rail supports, requires few posts and no top or bottom rail is required to keep the fence from sagging or narrowing together between the posts. Bear in mind that the bars in the "U. S." fencing are only two inches apart. Put up in rolls containing 150 lineal feet.

Prices per roll of 150 feet:

1-inch mesh:	2-inch mesh:
12 inches.....\$ 4.20	12 inches.....\$ 2.10
18 inches..... 6.05	18 inches..... 3.00
24 inches..... 7.70	24 inches..... 3.85
30 inches..... 9.60	30 inches..... 4.60
36 inches..... 10.50	36 inches..... 5.25
48 inches..... 14.00	48 inches..... 7.00
	60 inches..... 8.75
	72 inches..... 10.50
Less than roll, 4c square foot.	Less than roll 2c square foot.

Prices subject to change.

M. M. S.

The M. M. S. wire being only one inch apart at the bottom requires no board to prevent little chicks passing through. Also saves buying expensive one-inch mesh wire.



Pat. July 21, 1896.

[Trade Mark.]

Pat. July 6, 1897.

60 inches high, 165 feet long, per roll, \$8.00.
72 inches high, 165 feet long, per roll, \$9.50.

The prices here quoted are the lowest possible price at the time of going to press, but owing to the ever advancing prices these are not guaranteed, therefore, suggest that you write for quotations so that your order may not be delayed in shipping.

Price subject to change.

Roofing

Roofing is manufactured from a high-grade wool felt which is thoroughly saturated and coated with asphalt. It is fire-resisting, water proof and weather proof, and will last for a great many years. It is easy and quick to lay; can be used with equal success on a temporary shed, drykiln, mill or factory roof, modern office building or wherever a good material is required for a flat roof. Nails and cement are enclosed in each roll; made in different qualities.

1-ply, 34 lbs., per roll, \$3.00.
2-ply, 44 lbs., per roll, \$3.75.
3-ply, 54 lbs., per roll, \$4.75.
Best quality quoted.

One roll covers 100 square feet.

Poultry Feeds

In the days gone by it used to be considered that anything was good enough to be fed to poultry. The poultry business of today is being rapidly conducted on a truly scientific basis. There are three great essentials to success in the poultry business: Stock, Care, Feed. The success of the poultry man will depend upon the care and attention given to these three points. We are not supplying stock, and cannot give care, but we can and are supplying feed.

The different kinds of feed manufactured by us are put up under our Clover Leaf Brand, each bag bearing our name and a large green four-leaved clover. These are not put up haphazard, but are always put up as near as possible under the same formula regardless of the varying prices of the different grains and ingredients.

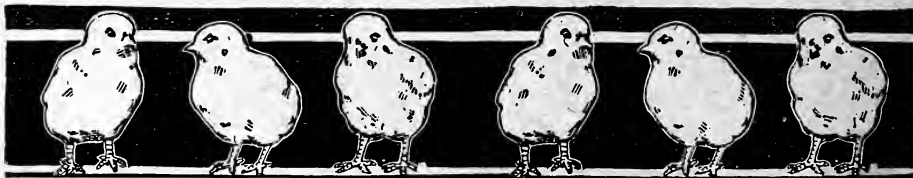
Advantages of using Clover Leaf Brand: Uniformity, Dependability, Purity, Cleanliness, Results.

Please note that we are quoting on poultry feeds at prices prevailing today, but we do not give any assurances that we will continue to sell at these quotations, as we expect to keep our prices on the basis of grain and other ingredients entering into their make-up.

Alfalfa Meal

The value of some green food for fowls can hardly be overestimated. For a winter feed alfalfa is one of the best for this purpose. It contains more protein, lime and mineral salts in soluble and digestive form than clover, and fowls relish it in either a green or dry state. For producing eggs it has no equal. 100 lbs., \$2.75.

Ryde's Milk Mash.



Milk-fed poultry are unquestionably the best. They grow faster and dress up into a firm white quality that cannot be surpassed. Ryde's Milk Mash is the same as new milk for baby chicks. No indigestion or bowel trouble from its use. It has the same feed value as whole milk and

is just as easily digested. It saves both time and money, as it is far less expensive to feed than milk and contains ingredients essential to raising chicks not found in milk. 100-lb. bag, \$7.25; 50-lb. bag, \$3.75; 25-lb bag, \$2.00; 8 1/3-lb. bag, 85c.

Clover Leaf Chick Feed

The experience of poultry raisers is the same the world over, and that is that it is easier to hatch young chicks than it is to raise them. By using Clover Leaf Chick Feed you can give the chicks just what nature intended they should have, a food composed of grains, grit, bone, meat and charcoal, etc., mixed in the right proportion to produce a quick and profitable growth without loss, 25 lbs. \$1.50. 50 lbs. \$2.75; 100 lbs., \$5.00.



Clover Leaf Grit



The sharpest and hardest grit known. Free from dust. Rich in iron, silica, aluminum and mica. Each crystal has sharp edges, which cut and grind, and grind and cut until the last minute particle is worn away. In ordering state whether you want chick or medium size. 100 lbs., \$1.50.

Clover Leaf Balanced Ration

This is a complete ground feed. It contains all the ingredients necessary to promote quick growth, to produce eggs and to keep the birds in a good condition. We have thoroughly studied the subject of feed for fowls and know this mixture will give you the desired results. Clover Leaf Balanced Ration costs only a little more than either wheat or corn and is more valuable. Can be fed dry or in a mash. 80-lb. bag, \$3.25.



CLOVER LEAF FORCING FEED, as its name implies, is specially intended for properly maturing young chicks after they are ready to be weaned from chick feed. When the chicks are from six to eight weeks old they are able to eat larger particles of grain than are found in our chick feed.

Our Forcing Feed contains a variety of grain in sizes and quantities exactly suited to the purpose for which it is intended. 50 lbs., \$2.75; 100 lbs., \$5.00.

Clover Leaf Scratch Feed

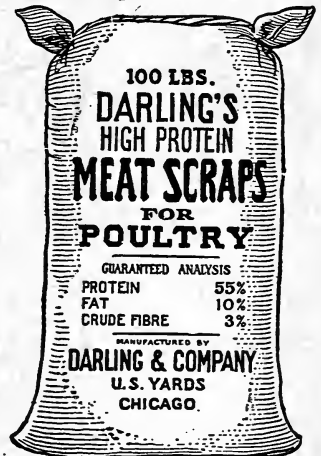


This is composed of choicest grains and other ingredients in just the correct proportions that several years of experience has demonstrated is right. Every practical poultry man will readily concede the great advantage of feeding such a mixture. Price, per 100 lbs., \$4.75.

Meat Scraps

The object in buying Meat Scraps or Meat Meal is to obtain the largest amount of digestible protein possible. Meat Scraps contain from 55 to 65 per cent of protein, 10 to 12 per cent less than 5 per cent of ash.

Darling's, 50-lbs. \$4.25. 100 lbs., \$8.00.



Blood Meal

One great reason why hens do not lay in winter is because they are not supplied the proper elements to produce the yolk of an egg. This can be remedied by the use of Dried Blood. Blood is the highest concentrated form of animal food and prepared so as to include all the elements of the so-called Red Albumen. Use only tablespoonful to six hens once a day. 100 lbs., \$8.75.

Bone, Granulated

Many poultrymen prefer granulated bone to fresh or green bone. Fresh bone contains 53 per cent of moisture and 12 per cent of grease, so that when a poultry man buys fresh bones he pays for 65 pounds of useless materials in every 100 pounds he buys. Granulated Bone is made from fresh bones with the moisture and grease taken out, leaving nothing but the phosphate of lime and nitrogen. 100 lbs., \$4.50.

Charcoal, Granulated

It aids digestion, purifies the blood, regulates the bowels and promotes the general good health of the chicks and adult fowls. Fine granulated, for all mash rations and for small chicks and a coarser granulated for adult fowls.

Unable to quote price at present as we have none in stock and there is none to be had as our catalogue goes to press. 50-lb. bag, \$2.75.

Shell

The feeding of shells to poultry prevents soft shelled eggs, makes the shells strong, and eggs larger and heavier.

Eastern Oyster Shell, per bag, \$2.00.

Poultry Tonics

Conkey's

POULTRY CONDITIONER—For general run-down condition; a fine general tonic during the moulting season or after recovery from any disease. Pkg., 30c; weight, 10 oz.; postpaid, 35c.

Gold Coin



POULTRY TONIC—It prevents all poultry diseases and saves feed. It is not what your poultry eat, but what they digest and turn into flesh and production of eggs that makes money for you.

30c, 60c, and \$1.20 packages. 12½ lb. pails, \$2.25; 25 lb. pails, \$3.75. Mailing weights, 2 lbs., 4 lbs., 7 lbs., 17 lbs., 30 lbs.; add postage.

Poultry Pepper Compound

This is a splendid tonic at all times. A small amount sprinkled in with a hot mash will stimulate the circulation and increase egg production. Lb., 25c; 5 lbs., \$1.00; add postage.

Poultry Remedies

Conkey's

BRONCHITIS REMEDY—Bronchitis is different from roup, and needs a special treatment which will reach the bronchial tubes. 60c; postpaid, 65c.

CANKER SPECIAL—A new remedy that effectively reduces the cankerous growth and brings the bird back to normal without a blemish. Also fine for treating colds; etc. Price, 60c; postpaid, 65c.

CHICKEN-POX OR SORE-HEAD REMEDY—Sore-head is getting to be one of the most serious troubles. Use it promptly and save your flock. 30c, 60c; postpaid, 35c, 65c.

CHOLERA REMEDY—For indigestion, bowel trouble and all so-called "cholera" ailments of chicks and grown fowls. 30c, 60c; postpaid, 35c, 65c.

GAPE REMEDY—Gapes is a troublesome disease, tedious to cure, but this remedy is highly successful. 30c, 60c; postpaid, 35c, 65c.

HEAD LICE OINTMENT—If a chick droops always look for lice on head, neck or under wing. 15c, 30c; postpaid, 20c, 35c.

LICE-FIX—Another and effective way of going after and getting the body louse. Three or four applications a year are sufficient. Price, 30c; postpaid, 35c; 60c, postpaid, 65c.

LIMBER NECK REMEDY—You will not lose a bird from limber neck if you give this medicine promptly. 60c; postpaid, 65c.

POULTRY LAXATIVE—Purgative or laxative, according to dose. 30c; postpaid, 35c.

ROUP REMEDY—Remember that roup is highly contagious. Neglect to treat promptly endangers your whole flock. But even in neglected stages don't despair, but use Conkey's Roup Remedy according to the special direction for worse cases. 30c, 60c and \$1.00; postpaid, 35c, 65c and \$1.05.

SCALY LEG REMEDY—Keeps the feet in nice shape. 30c; postpaid, 35c.

WHITE DIARRHOEA REMEDY is a special preventative and remedy for this dread scourge of incubator chicks. Price, 30c, 60c; postpaid, 35c, 65c.

Gold Coin

LICE KILLER—Kills lice in hen houses, hog pens, stables, etc. Quarts, 50c; half gallon, 75c; one gallon, \$1.25. Not mailable.

LOUSE POWDER—Kills lice, ticks, mites on poultry, pigeons, dogs, cats, stock. Can, 30c and 60c; mailing weight, 2 and 4 lbs.; add postage.

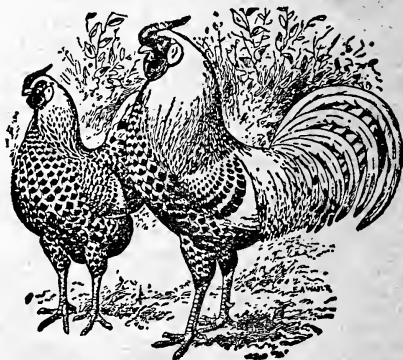
Lice Powders

BUHACH—Per 3 oz. pkg., 35c; 6 oz. pkg., 60c; 12 oz. pkg., \$1.00; add postage.

PERSIAN INSECT POWDER—Lb., \$1.50; add postage.

DISINFECTANTS

Carbolineum



Carbolineum is without doubt the most effective exterminator of mites and lice on poultry, poultry houses, lice on horses, cattle and hogs, ticks on sheep, fleas on cats and dogs.

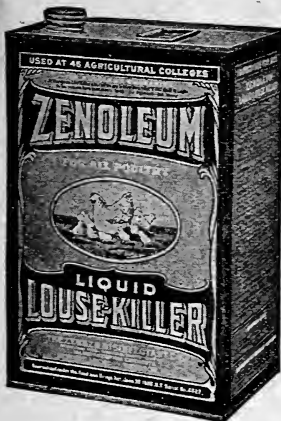
FOR CHICKENS—Simply paint walls, roosts, floors and roofs of the poultry houses or barns after first thoroughly cleaning them. It does not make a particle of difference whether the interior is of wood, plaster or tar paper. One coat of Carbolineum kills instantly all mites, bugs, lice and vermin.

FOR HORSES, CATS AND SHEEP—Sprinkle some on an old blanket and tie around the animal for several hours. Also paint the stalls.

FOR HOGS—Sprinkle a little Carbolineum diluted with water on the bedding and also paint the hog pen.

Quarts, 60c; gallons, \$3.00. Not mailable.

Zenoleum



One gallon of Zenoleum makes 100 gallons of positive disinfectant. Kills vermin, cures skin trouble. Invaluable as a remedy for diseases of poultry and all live stock. Kills lice and cures mange. Disinfects incubators. 8-ounce can, 35c; quart, 65c; half gallon, \$1.10; gallon, \$1.75. Not mailable.

GERM KILLER—Destroys all disease germs, cleanses and purifies filthy places. Can, 30c and 60c; not mailable.

SULPHUR CANDLES—For fumigation, 10c; postpaid, 15c.

Tobacco Dust

For use in dust baths or nests. A cheap and effective exterminator of lice. Lb., 15c; add postage.

DOG SPECIALTIES

THEY FIGHT FOR SPRATT'S



PUPPY BISCUITS (The Standard Puppy Food)—A perfect and whole food for puppies of all breeds. Puppies should be started on these biscuits when about one month old and they should be continued until such time as their teeth become sound and strong, usually when they are about six months old. Pkt., 45c; mailing weight, 3 lbs. Add postage.

DOG BISCUIT—The analysis of these biscuits shows that they are, weight for weight, equal in nourishment to fresh raw beefsteak and superior to it as a food for dogs. The standard dog food; a staple and constant food for all breeds of dogs. Pkt., 45c; mailing weight, 3 lbs., 10-lb. bag, \$1.50. Add postage.

Booklet, Spratt's Dog Culture, mailed on request.

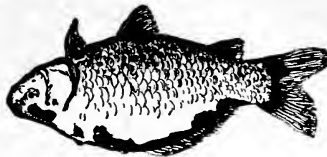
Conkey's

DISTEMPER REMEDY—Price, 60c; postpaid, 65c.

MANGE REMEDY—For eczema, canker, sore ears, ring worms. 60c; postpaid, 65c.

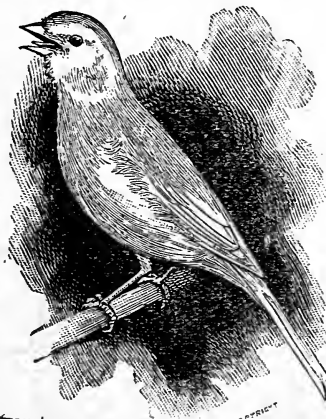
WORM DROPS—Price, 60c; postpaid, 65c.

FISH FOOD



SPRATT'S—The best food for rearing trout, etc. Used at the leading trout hatcheries. Price 10c; postpaid, 15c.

BIRD SPECIALTIES



SPRATT'S PATENT LEE

BIRD BITTERS—A remedy for nearly all the diseases of cage birds. 25c; postpaid, 30c.

BIRD HEALTH—A condition powder. Should be fed only when your bird is sick, but it should be used as a preventive of disease. 20c; postpaid, 25c.

BIRD MANNA—Keeps cage birds in constant song. Improves their plumage and prevents disease. 15c; postpaid, 20c.

BIRD SAND—Pkg., 2 lbs., price, 15c; add postage.

SONG RESTORER—A treat and tonic for canaries, linnets, and all seed-eating birds. 15c; postpaid, 20c.

SPRATT'S BIRD TONIC (Henning's)—For the prevention and cure of all diseases which cage birds are subjected to. Bottles, 20c; not mailable.

SPRATT'S PARROT FOOD—A mixed food for parrots which should be kept before them all the time. 20c; postpaid, 25c.

SPRATT'S "DEFIANCE" MOCKING BIRD FOOD—The purest food obtainable for mocking birds, robins, thrushes and other soft-billed birds. 30c; postpaid, 35c.

SPRATT'S PATENT POLLICRACKERS—A specially prepared biscuit for parrots and all similar birds. Made in a convenient size for a bird to grasp. Is greatly relished as a change. 15c; postpaid, 20c.

SPRATT'S "CANARDYNE" (Tlbb) — For asthma and wheezing in cage birds. Bottles, 30c; not mailable.

MITE POWDER—To free the bird from mites, blow a little of the Mite Powder under the feathers of the bird in the evening by means of an insect powder gun. At night cover the cage with a piece of white canton flannel. Early next morning remove the flannel and carefully destroy all the mites, which have crawled into it during the night, by immersing it in hot water. Price, 25c; postpaid, 30c.

POWDER GUNS—25c, 35c; postpaid, 30c, 40c.

Bird Seed

CLOVER LEAF—Lb. packages, 25c.
 CANARY—Per lb., 25c.
 HEMP—Per lb., 15c.
 RAPE—Per lb., 15c.
 MILLET—Per lb., 15c.
 CUTTLE BONE—Two for 5c.
 SUNFLOWER—Per lb., 20c.
 Add postage on all bird seeds.

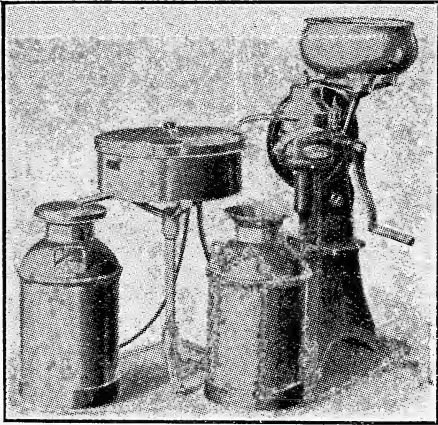
Hare Ear Marks



Price, doz., 20c; 25, 35c; 50 60c; 100 \$1.00.
 Numbers only.

Dairy Supplies

CREAM AND MILK COOLERS



The Ideal Sanitary Cream Cooler

Will remove the animal heat from the cream while flowing from the separator, and will reduce the temperature sufficiently low that it can be at once mixed with older cream and set aside for future delivery without further cooling.

Its cooling capacity is sufficient that where used in connection with the largest hand-power separator, it is capable of reducing the temperature to within three to four degrees of the water used.

It is so constructed that it can be placed under the cream spout of the smallest size separator and still be high enough to deliver by gravity into a 5 or 10 gallon can.

Price, \$20.00. Sanitary cover for milk can and elbow spout to fit cooler, \$2.00 extra.

DE LAVAL CREAM SEPARATORS

Skims cleanest, turns and washes easiest, construction simplest; lasts the longest.

The De Laval was the first cream separator in 1878 and it has been first ever since.

More De Laval's are in use than all other makes combined.

98 per cent of the world's creameries use the De Laval exclusively.

The machine that is best for the dairyman.

De Laval hand-size machines range in capacity from 1,350 to 225 pounds per hour—seven sizes.



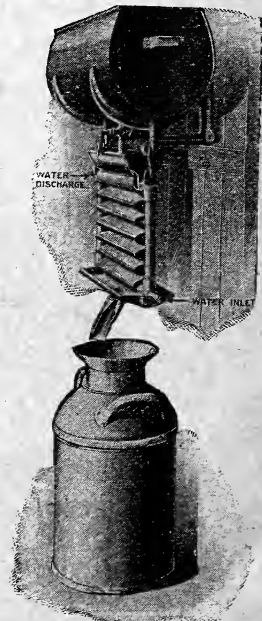
De Laval Cream Separator

The De Laval is by far the most economical cream separator and always gives satisfaction. Send for catalogue.

SEPARATOR OIL

De Laval's, gallons.....	\$1.50
De Laval's, half gallons.....	1.00
Standard, gallons.....	1.25
Standard, half gallons.....	.90
Standard, quarts.....	.60
Not available.	

Milk Cooler



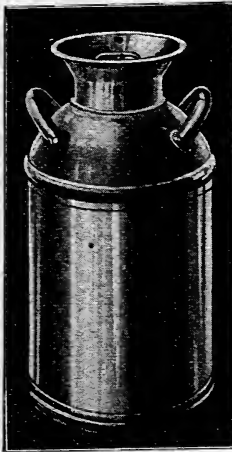
Junior.

JUNIOR—This cooler is of tin construction and is as strong and durable as it is possible to construct it, but being made of tin it is cheaper than the Bloom.

No.	Width.	Height	Capacity per		Price
			Hour		
A	15-in.	10-in.	20-gal.		\$40.00
B	15-in.	14-in.	40-gal.		45.00
C	15-in.	17-in.	60-gal.		50.00

CANS

TIGER—The material used in the manufacture of these cans is the very best obtainable; for proof of this we call your attention to the construction of the covers, necks and bottoms; no material but the very best and most select would ever stand the strain of drawing and bending which is done in the manufacture of these cans. The parts are all smooth without waves or wrinkles and are guaranteed not to split. Material that is not properly annealed will split and crack, but our cans are **GUARANTEED** not to do this.



All parts are treated to two coats of pure block tin after being properly made to size so that all edges are tinned just the same as the flat surfaces.

The bottom is No. 14 gauge steel. This can has what is commonly known as the "rolled in bottom." The breast hoop is notched with a V-shaped groove in which the breast is wedged, locking it securely in place. On other cans the breast hoop is simply shrunk into place and held with solder; this hoop can easily be jarred loose. The neck is reinforced at the two most important points, and it makes a neck that will not break down. The body sheet and breast are No. 20 gauge steel and the cover is seamless. Malleable handles.

5 gallons, \$6.00. Weight, 12 lbs.

10 gallons, \$8.50. Weight, 21 lbs.

Add postage.

OHIO—This can is made with a single neck and is fitted with the popular outside bottom loop. It is very generally used for delivering milk and cream to the local creameries and will stand years of service. It is also used for a railroad shipping can. It has round handles and will be found a very satisfactory can.

5 gallons, \$5.25. Weight, 11 lbs.

10 gallons, \$6.75. Weight, 17 lbs.

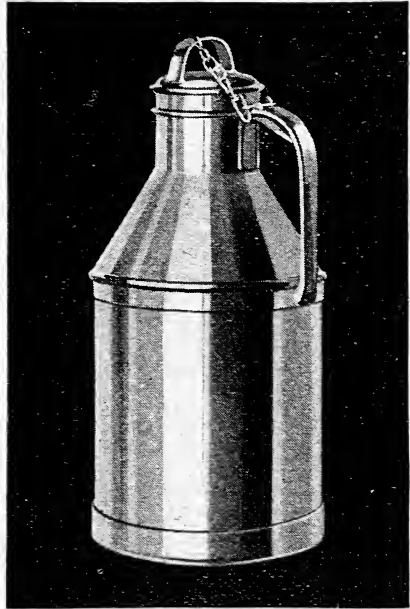
Add postage.



City Delivery

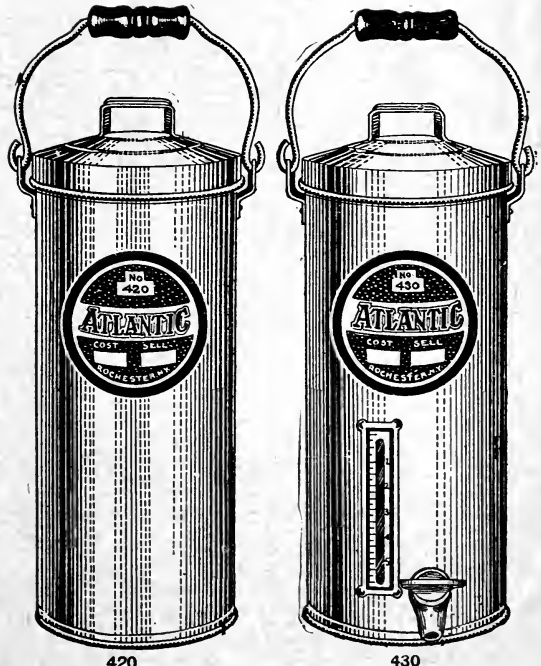
DELIVERY—Side handle, cover chained to can; well made and durable.

1 gallon, city delivery, \$1.75; 2 gallon, city delivery, \$2.00; 3 gallon (St. Johns), \$4.00; 3 gallon (St. Johns), \$4.50. Weight, 1 gallon, 5 lbs.; 2 gallons, 6 lbs.; 2 gallons, 7 lbs.; 3 gallons, 8 lbs. Add postage.



St. Johns

PAILS



420

430

CREAM, No. 420—20-Quart—Dimensions, 9x20. Made from full weight 5 A charcoal plate. Heavy retinned, seamless cover. Heavy ears. Retinned ball with wood grip. Price, \$2.50; weight 5 lbs. Add postage.

No. 430—20 quart. Made the same as 420, and fitted with glass gauge and solid brass faucet. Price: 20-quart, \$3.50. Weight, 5 lbs. Add postage.

MILK PAILS



4744

MILK, No. 4744—14-quart. Sanitary 5A charcoal plate mirror finish. soldered inside and outside. Price, \$2.75. Weight, 5 lbs. Add postage.



4624

No. 4634—Sanitary 14-quart. Extra heavy steel clad 5A charcoal plate mirror finish, 4 rivet ears. Extra heavy retinned balls. soldered inside and outside. Price, \$2.25; weight, 4 lbs.; add postage.



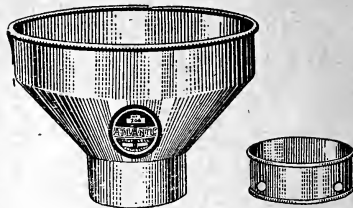
4634

1110. 14-quart dairy and water pail. Bright plate; top 11½ inches; bottom, 9 inches; height, 10 inches. Price, \$1.00. Weight, 4 lbs. Add postage.

No. 2714. 14-quart—5A charcoal plate, mirror finish; square strainer on breast; 12¼-inch top; 9¼-inch bottom; 10¼-inch height. \$2.25. Weight, 8 lbs. Add postage.

No. 4812. 12-quart, 4X—5A charcoal plate, mirror finish; 9¾ inches by 13½ inches; neck diameter, 5½ inches. Price, \$3.50. Weight, 5 lbs. Add postage.

STRAINERS



3-quart, No. 302, \$1.00; weight, 2 lbs.; add postage.

6-quart, No. 306, \$1.50; weight, 2 lbs.; add postage.

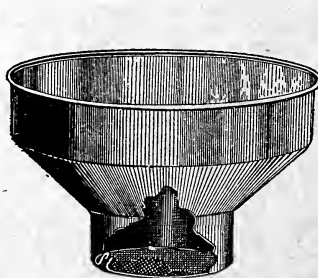
10-quart, No. 410, \$2.00; weight, 3 lbs.; add postage.

Extra heavy retinned, seamless, sanitary, 70 mesh, solid brass strainer cloth. Extra slip foot for cheese cloth.



910

10-Quart, No. 910—Extra heavy retinned seamless, sanitary, double milk strainers. Inside strainer 100 mesh outside strainer 70 mesh. Price, \$4.00; weight, 5 lbs.; add postage.



Lock Spring



70-Mesh Strainer Cloth



Perforated Tin

No. 1010. 12-quart—Extra heavy retinned, seamless; removable strainers; sterilized cotton wadding used between perforated tin and strainer cloth. Each, \$3.25. Weight, 4 lbs. Add postage.



MILK AND CREAM SCALE

CHATILLON SPRING BALANCE

This scale is specially made for weighing milk in pails. The dial is divided into ounces. The indicator is adjustable, so that it can be set back to take out weight of pail. Each scale carefully tested.

30 pounds	\$5.00
60 pounds	7.50

CHURNS—BARREL

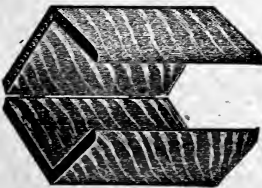


These churns are strongly constructed, are durable, do good work and will give entire satisfaction.

5 gallons.....	\$7.50	15 gallons.....	\$9.50
9 gallons.....	8.50	20 gallons.....	10.50

BUTTER MOLDS

All wood, brass hinges and screws. Price, 60c; weight 1 lb.; add postage.



Ideal Family Butter Mold

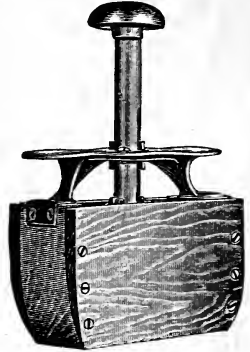
This printer is well made, durable, and where only a small amount of butter is to be printed, makes fully as satisfactory prints as one costing several times as much. The weight of the print may be quickly regulated by the two brass adjusting screws. Comes in two different patterns:

Western Style Print— $1\frac{1}{2} \times 3 \times 6\frac{3}{4}$ inches. \$2.00.
Eastern Style Print— $4\frac{1}{4} \times 2\frac{1}{2} \times 2\frac{3}{4}$ inches. \$1.50.
Weight, 2 lbs.; add postage.

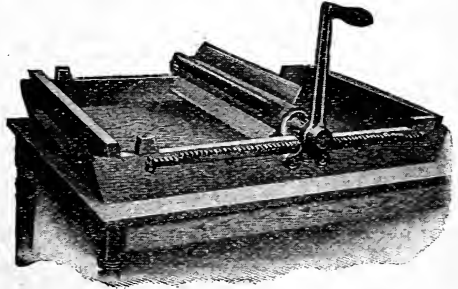
Up-to-Date Printer

Specially selected close grained hardwood; nicked brass trimmings. Size of prints quickly adjusted.

Printer to print pounds $4\frac{1}{4} \times 2\frac{1}{2} \times 2\frac{3}{4}$ in each, \$5.00; weight, 4 lbs.; add postage.



Wizard Butter Worker

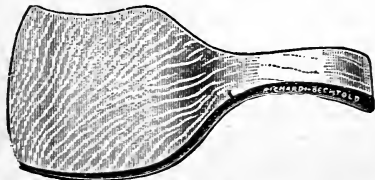


This style butter worker is a favorite with many. Butter is placed in the tray, salt added then worked by turning the crank, which causes the fluted roller to travel to and fro. The metal parts are all galvanized to prevent rust. Cut shows worker set on table, but prices below are for worker only without legs.

No. 3—Size. 17x29 in. and 3 in. deep inside, capacity 10 lbs.; weight, 20 lbs. Price, \$11.50.

No. 4—Size 14x23 in. and $2\frac{1}{4}$ in. deep inside, capacity 10 lbs.; weight, 20 lbs. Price, \$10.00.

Butter Ladles



Dairy Spoon

Corrugated Dairy Ladle— $2\frac{3}{4} \times 9\frac{3}{4}$, each, 15c.
Dairy Spoon, 4x9, each, 15c.

Postage 5c extra.

Butter Color

Wells & Richardson, bottles, 25c, 50c, \$1.00.
Add 5c additional for postage.

MILK BOTTLES



It is true that in milk bottles, as in almost all other things, there is a great difference in quality, and it is equally true that dealers have not said much about this fact, but have simply sold milk bottles. Different factories sell milk bottles at different prices on account of difference in quality and the difference in the manner of making. Milk bottles are manufactured in three ways: By hand, by half machine process and machine made. Hand made and what is termed half machine made are not and can not be made of uniform size, neither can they be made with an even distribution of glass over the entire bottle, consequently some part of the bottle will be thicker than is necessary and

some parts thinner. The strength and duration of the bottle is governed not by the thick, strong parts, but by the weak, thin parts.

Hand and half machine made milk bottles will be found to have imperfect cap seats, because of the way in which they are made.

Machine made milk bottles are of uniform correct capacity, have even distribution of glass, and have always perfect cap seats. What is known as Owen's (Patented) machine for the manufacture of machine-made milk bottles, is the only machine invented so far that will do this work.

The Thatcher Manufacturing Co. has the sole use of this machine, and are the only manufacturers that are making milk bottles by a machine. In addition, the plants producing these machine-made milk bottles do not make any other style bottle. Consequently, they can produce them of a more uniform quality, of a more uniform color and a much better, higher grade of bottle.

After a thorough investigation of milk bottles we have decided to handle the Thatcher, because of their superior quality and greater durability. It is true there are bottles that can be bought for less money than the Thatchers, but it is equally true that the Thatchers are the cheapest.

Half Pints, doz., 90c; gross, \$8.50.

Pints, doz., \$1.00; gross, \$10.25.

Quarts, doz., \$1.25; gross, \$13.00.

Not mailable.

TURBINE BOTTLE WASHERS

This bottle washer is made with a new gearless turbine, the speed being controlled by the governor. When the speed of the turbine reaches a certain point the governor operates to prevent the speed exceeding the limits of safety. This governor is in a separate case to keep out the moisture, which would have a tendency to cause the bearings to rust and cause it to act too slowly. The cover to this case can be removed in a moment and the speed adjusted at any desired point.

The brush spindle is so constructed that it will hold the brush handle firmly, and when it



THE 20TH CENTURY

is desired to replace worn out brushes with new ones, a few seconds' time is all that is required.

The machine is heavily galvanized and is fitted with compression grease cups, bronze gears and bearings, special steam gauge and syphon, globe valve, and all necessary pipes and couplings. Price, \$28.00.

BOTTLE CAPS



BOTTLE CAPS—No lift, 45c per 1000; perfection, with lift, 55c per 1000.

Special prices on barrel lots of 50 M, printed with your name

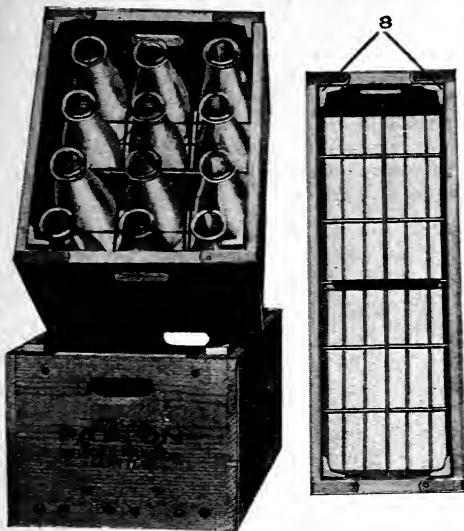
Weight per M., 3 lbs. Add postage.

SINGLE VALVE FILLER

The cut herewith is of a very simple and practical bottle filler for filling bottles one at a time and suitable for dealers filling 50 to 300 bottles per day. It consists of a cylindrical can having a stiff, heavy bottom to which is attached a standard bottle-filling valve. The operation is easily understood from the cut. Bottles can be filled in delivery cases or when setting on table or bench. Fills all bottles to an even height, no topping or refilling. Valve can be taken apart for cleaning in less than five seconds. Price, tin can, no case furnished, \$17.50.



BOTTLE DELIVERY CASES



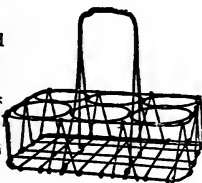
12-quart, \$1.65; weight, 13 lbs.; add postage.
20-pint, \$1.65; weight, 11 lbs.; add postage.
20-half-pint, \$1.65; weight, 13 lbs.; add postage.
age. Straight or Assorted, $\frac{1}{2}$ doz., \$9.50; doz., \$18.00.

BOTTLE CARRIERS

Galvanized, with improved handles.

12 bottles, $\frac{1}{2}$ pints, ea. \$1.50
6 bottles, pints, each...\$1.25
8 bottles, quarts, each 1.5

Weight, 5 lbs., 3 lbs. and 4 lbs. each; add postage.



BRUSHES—Bottles, Milk

Add 5c to all brushes if forwarded by mail.



No. 72—Black china bristle, brush part $2\frac{1}{4}$ -in. diameter, 6 inches long; handle, 9 in. Price, 50c.



No. 73—See description bowl brush No. 73. Price, 65c.



No. 86—See description bowl brush No. 72, with exception of stiff bristle and better quality. Price, each, 65c.



No. 123—Machine brush, extra stiff gray hair; brush part 3 inches diameter and $6\frac{1}{2}$ inches long. Taper handle, 6 inches. Price 60c.

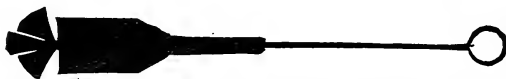
Bottles, Test



No. 60—Stiff bristle body and tufts, brush part $3\frac{1}{4}$ inches wide, $2\frac{1}{4}$ inches thick, 7 inches long, hardwood handle. $\frac{1}{2}$ inch diameter; 10 inches long. Price, 40c.



No. 1—For Babcock 10% milk bottles; white bristle; brush and handle $7\frac{1}{2}$ inches. Price, 20c.



No. 107—For Babcock cream bottles; white bristle in body and tuft; length over all, 11 in. Price, 25c.

Bowl

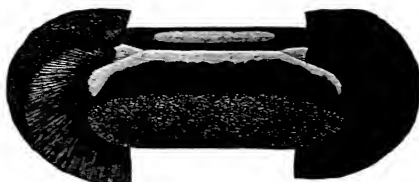
No. 104—De Laval, small, black china bristle; brush part $\frac{3}{4}$ inch diameter, $2\frac{1}{2}$ inches long; length over all $8\frac{1}{4}$ inches. See cut can brush No. 104. Price, 20c.

No. 72—Black china bristle; brush part $2\frac{1}{4}$ inches diameter, 6 inches long; handle 9 inches. See cut milk bottle brush No. 86. Price, 50c.

No. 47—Black Tampico. Brush part $3\frac{1}{4}$ inches diameter, $5\frac{1}{2}$ inches long; length over all 13 $\frac{1}{2}$ inches. See cut can brush No. 47. Price, 50c.

No. 73—Black China Bristle; brush part $3\frac{1}{4}$ inches diameter, 6 inches long, hickory handle, $\frac{1}{2}$ inch diameter; 9 inches long. See cut milk bottle brush No. 73. Price, 65c.

Can



No. 08—Stiff Palmetto Fibre; length on face, 9 inches; width on face, 5 inches. Price, 50c.



No. 412—Palmetto fibre, straight handle, brush part $4\frac{1}{2}$ inches diameter, $5\frac{1}{2}$ inches long; length over all, 24 inches. Price, \$1.00.



No. 47—See description bowl brush No. 47.
Price, 50c.

Spout



No. 104—See description bowl brush No. 104.
Price, 20c.



No. 12—Extra stiff gray bristle; brush, part
5 inches by 2 inches diameter; length over all,
13 inches. Price 35c.

Milk Coolers



No. 286—Palmetto fibre, covered handle, 14½
inches long. Price, 45c.

Add 5c to all brushes if forwarded by mail.

RUBBER RINGS

No. 3033—For No. 5, 10 and 12 DeLaval Sepa-
rators. Each, 15c.

No. 3557—For No. 15 DeLaval Separators.
Each, 15c.

No. 1, 1B, 2 and 2B Empires. Each, 15c.

Balls, Steel

For Empire Separators. 5c each.

Points, Steel

For Empire Separators, 20c each.

No. 3072—For No. 5, 10 and 12 DeLaval Sepa-
rators, old style, 2 for 25c.

No. 4110—For No. 12 and 15 DeLaval Separa-
tors, new style, 2 for 25c.

MILK CAN SEALS

Seal your cans; insure yourself against loss,
at a very small cost.

Lead, single wire: 100, 30c; 500, \$1.25; 1000
\$2.00.

Seal press, each, \$2.25; weight, 2 lbs.; add
postage.

Duro Stirrer or Sampler

Both Sampler and Stirrer have saucer-shaped
disc of steel firmly attached to wrought iron
handle of sufficient length to reach bottom of
10-gallon can. First agitate vigorously, then lift
straight up. Sampler bowl holds sufficient
amount for sample and has lip for easy pouring
into cup or sample jar. Stirrer bowl is punched
with five holes, which makes stirring more ef-
ficient.

Stirrer or Sampler, each 60c; weight, 2 lbs.,
add postage.

THERMOMETERS

Thermometers and all glassware are packed in
the most careful manner, but owing to the great
liability of breakage when sent by parcel post
we will not guarantee their safe delivery nor be
responsible in case of breakage. To avoid loss
the best plan is to have them insured, and if
you so desire, include insurance with your re-
mittance.

Glass Floating, Best Grade

5700—Churn Thermometer, glass
cylinder, hand written paper scale,
1° graduation, accurate within one
division of the scale, mercury
tube, shot weighted, guaranteed
to float upright. Approximate
scale range, 10° to 110° F., 10
inches. Price, \$2.25; postpaid,
\$2.35.

5701—Pasturizing Thermometer,
glass cylinder hand written paper
scale, 2° graduation, accurate
within one division of the scale,
mercury tube. Approximate scale
range, 30° to 220° F., 10 inches.
Price, \$2.25; postpaid, \$2.35.

Ordinary Grade

5715—All glass floating Churn and
Pasteurizing Thermometer. Ap-
proximate scale range 20° below
zero to 150° above. Length, 8 in.
Mercury filled. Price, \$1.25; post-
paid, \$1.35.



5715



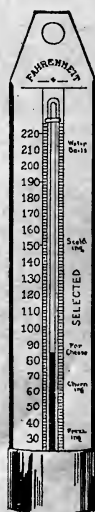
5700



5701



5705



5740

Selected Common Grade

5740—Spirit, selected common grade. Nickered sliding guard; red liquid tubes. Price, \$1.00; postpaid, \$1.10.

5705—Flanged, metal scale Churn and Pasteurizing. Ten-inch electro silver plated strops and screws; magnifying, filled tube, sliding guard. Scale, zero to 220° F. Price, \$2.00; postpaid \$2.10.

Anti-Cow Kicker

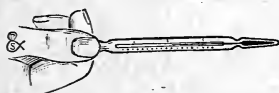
Save your temper, your cows, your milk. Does not excite the cow, nor disturb the flow of milk. Indispensable for breaking heifers. Cows with sore teats, or vicious kickers. Can not wear out. Put on or off in 15 seconds. Guaranteed to be an absolutely perfect anti-kicker or put on loosely as hobble for cow, horse or mule. Price, \$1.50; postage extra. Weight, 2 lbs.

CATTLE INSTRUMENTS

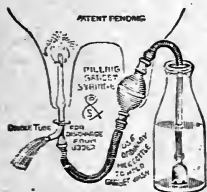
CATTLE TROCAR—Will promptly and safely relieve bloot. Every owner of cattle should have



one on hand. Easy to use. Price, \$1.80; postpaid, \$1.75.



FEVER THERMOMETER—The normal temperature of the horse is 99 3-5 degrees, of cow is 99 to 102 degrees. Every owner of stock should have a Fever Thermometer for immediate use when an animal is taken sick. You can thus distinguish whether or not it is a febrile (fever) disease, and if it is, proceed at once to give necessary medicine to prevent the fever rising. They are easy to use. These Thermometers are tested and registered. Price, \$2.50; postpaid, \$2.55.



germs and other impure matters to escape from the udder. On the other end of the rubber tube is fitted an improved strainer made of copper, which prevents hayseed or other foreign matter from entering the apparatus and clogging up the valves.

Pilling Garget Syringe Outfit Consists of

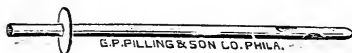
Pilling Garget Syringe. Pilling Remedy (30 treatments). Pilling Animal Soap. Price, \$4.50; postpaid, \$4.60.

HARD RUBBER TEAT PLUG

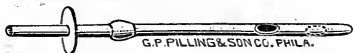
Especially designed for two purposes:

First, to prevent dropping of milk

in cows where there is relaxation of the little muscles at the end of the teat and consequent leakage of milk; and, secondly, to dilate the canal of the teat above the muscle in cases where hard milking is due to the contraction of this part of the canal. Price, 50c; postpaid, 55c.



MILKING TUBE—Plain, plated. Price, 40c; postpaid, 45c.

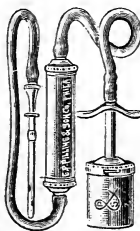


MILKING TUBE—Self-retaining, 3 inches, plated. Price, 50c; postpaid, 55c.



TEAT EXPANDERS—Of metal, nickel-plated, is intended to expand and enlarge the opening of hard-milking teats. Also, at the same time, it expands the milk canal; it is considered the best method of treating hard milkers. Easy to use. Price, 75c; postpaid, 80c.

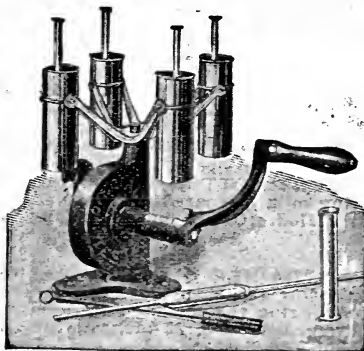
LEAD PROBE—For enlarging opening in the cow's teats. 25c; postpaid, 30c.



MILK FEVER OUTFIT—Is made, according to specifications described in Farmers' Bulletin, 45, issued by the Bureau of Animal Industry, U. S. Department of Agriculture, except we do not use the rubber bulb, which so easily rots; but in its place we furnish, without extra charge, our patented Metal Pumps, which will last a lifetime.

Milk Fever Outfit Metal Pump and Regulator Tube, \$3.50; postpaid, \$3.60.

BABCOCK MILK TESTER



Many thousands of "Official" testers have been sold. It is used by dairymen, farmers, in hotels, restaurants and laboratories. It does accurate work, and with the instructions furnished anyone can make a perfect test. The most convenient and accurate of any low priced hand tester ever offered.

Made in two and four bottle sizes. Each tester includes: a full set of bottles, pipette, acid measure, test bottle brush, acid and full directions for making tests.

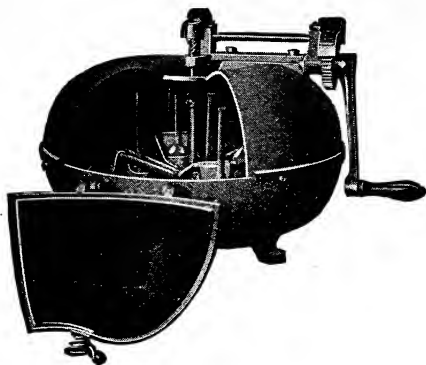
No. 1—2-bottle, milk only, \$6.00.

No. 2—4-bottle, milk only, \$7.00.

No. 3—2-bottle, milk and cream, \$6.50.

No. 4—4-bottle, milk and cream, \$7.50.

20th Century Milk Tester



This is an especially fine hand tester, and is built for dairies which are without the steam apparatus necessary to run a turbine tester. A speed of from 900 to 1,000 revolutions per minute can easily be obtained. All gears are encased and at the top of the machine; are milled in special milling machine; are absolutely accurate and therefore noiseless. The bottles are perfectly enclosed, doing away with danger from flying glass, acid, etc., should one of the bottles break. Complete with glassware, 6 bottles. Price, \$15.00.

ACID MEASURES

17—5 C. C. Each, 20c; ½ doz., \$1.00; doz., \$1.75.

TEST BOTTLES

Milk, 6-inch, 10 per cent. Each, 25c; ½ doz., \$1.40; doz., \$2.50.

Cream, 6-inch, 50 per cent, 18 gram. Each, 35c; ½ doz., \$1.75; doz., \$3.00.

Skim milk. Each, 75c.

Postage 5c extra.

PIPETTES

17—6 and 18 C. C. combined, each, 25c; ½ doz., \$1.25; doz., \$2.25.

Postage 5c extra.

We do not guarantee delivery of glassware.

ABSORBENT COTTON—An approved cotton for filtering milk, prepared in rolls, neatly wrapped and sealed. One 1-lb. roll, 50c; add postage.

LINEN STRAINER CLOTH is used to place above or below absorbent cotton to prevent the milk from tearing the cotton as it is emptied upon it. Price, per yard, 72 inches wide. Weight, 1 lb., \$1.00; add postage.

RED CROSS FILTER CLOTH—Is a specially woven cloth with the nap raised and is intended to take the place of ordinary cotton and strainer cloth, as it combines in itself the qualities of both. It is especially commended for use in filter vats, and can strainers. 1-lb rolls, 17 in. wide by 20 feet long, each, \$1.25; add postage.

PARCHMENT BUTTER WRAPPERS

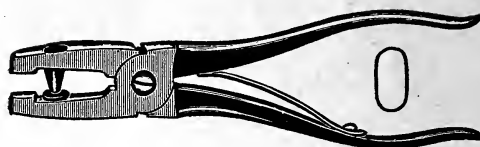
8x11—Plain	100, 25c; 500, \$1.15; 1000, \$2.00
8x11—Printed	100, 30c; 500, \$1.25; 1000, \$2.25
9x12—Plain	100, 30c; 500, \$1.25; 1000, \$2.25
9x12—Printed	100, 35c; 500, \$1.35; 1000, \$2.50

The printing does not include name and address, but is what is known as stock print.

Weight per thousand, 7 lbs.; add postage.

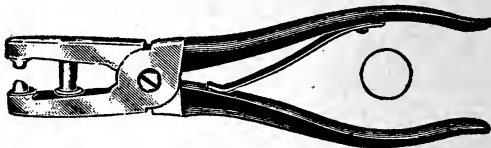
PUNCHES

Ear Label Punch



This punch is made for inserting the labels only. It is necessary to cut hole in ear and also to seal labels. Price, \$1.50; postpaid, \$1.55.

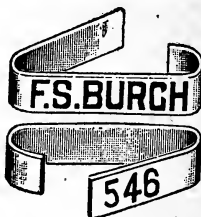
Combined Punch and Plier



This combined punch and pliers are especially made for adjusting the buttons. The cutter makes the necessary hole, and the nipples seal the button.

Each, \$1.50; postpaid, \$1.55.

EAR TAGS



		Sheep and Hogs.	Cattle
25 name and number	.....	\$0.85	\$1.00
50 name and number	.....	1.25	1.50
100 name and number	.....	1.75	2.25
500 name and number	.....	8.00	10.00
25 name only or number only	.....	.75	.90
50 name only or number only	.....	1.00	1.25
100 name only or number only	.....	1.25	1.75
500 name only or number only	.....	6.00	8.00

Name can be put on the one side, numbers on the other. Not more than 10 large size letters can be put on hog or sheep sizes, or fifteen on cattle. Mailing weight, 100 sheep size, 1 lb.; 100 cattle, 3 lbs.



IDEAL EAR BUTTONS

Are made of pure hardened aluminum, consisting of two parts or sleeves, thus giving an absolute seal that will not become loose.

25, \$1.50; 50, \$2.00; 100, \$3.75; 500, \$16.25.

Add 5c per 100 or less number for postage.

SALE TAGS

These tags are very popular with hog men for identification during sales, as they are easily fixed in the ear with the regular hog rings, made of aluminum.

25, 75c; 50, \$1.25; 100, \$2.50.

Add 5c for postage to above prices.



STANCHIONS

It is a recognized fact that the use of stanchions is the most approved way of confining milk cows in their stalls. It is true that safety and comfort are the points to be considered in selecting your stanchions, and it is also equally true that all stanchions do not offer these in the same degree. The J. 14 is equipped with Alignment Irons, Wood Lining, Double Chain Hanger, Anchor Plate, and Lock Open Device.

ALIGNMENT DEVICE—Adjusts the stanchion forward or backward in the stall lengthening or shortening the stall to fit the cow.

WOOD LINING—Is made of thoroughly seasoned birch, carefully milled, shaped, polished to a perfect smoothness.

DOUBLE CHAIN HANGER—Is attached to at the sides, where the strain all comes on the side bars; is made of specially annealed malleable iron, giving it remarkable strength; will not break or get out of order.

ANCHOR PLATE—Set in the concrete curb, furnishes a firm anchorage, to which the stanchion is attached; is so designed that a bolt may be easily inserted or taken out.

LOCK OPEN DEVICE—This consist of a small chain attached to the loose arm of the stanchion, one link being inserted into a hook on the rigid post of the stanchion frame, making it impossible for the cow is dissengage it.

J.14—Price, \$5.00.

K.15—The same stanchion exactly as J.14, with exception of alignment device.

Price, \$4.50.

Plates and bolts, 50c per stanchion.



J. 14

OIL MEAL

Suggestions for Feeding

MILCH COWS—Any quantity per day not exceeding two quarts per head.

FEEDING FOR MARKET—Three to six pounds per head per day.

HOGS—About 25 pounds to each barrel of thin slop, mix thoroughly and allow to stand about ten hours before feeding.

SHEEP—One to one and one-half pounds per day per head. This amount is not sufficient for fattening wethers, but has the positive effect of largely increasing the growth of wool.

HORSES—One pint to one quart per head per day when fed with grain, bran and similar feeds.

FOWLS—Mix into a soft or boiled feed or a bran mash, at least one-tenth of the mixture to be fine ground Oil Meal.

LINSEED OIL MEAL is a food, not a medicine. There is no danger of feeding too much.

LINSEED OIL MEAL has proven that it is the greatest flesh-former, milk and butter producer, of all concentrated stock feeds.

ITS VALUE AS A FLESH PRODUCER

The following table shows value as compared with other material, as to the percentage of flesh produced from 100 pounds:

Indian Corn Meal	11 per cent
Barley Meal	13 per cent
Wheat	14 per cent
Oat Meal	18 per cent
Oil Meal	22 per cent

N. B.—1 lb. Oil Meal equals 3 lbs. corn, 9 lbs. wheat bran, or 15 lbs. hay.

ITS VALUE AS A MILK PRODUCER

The following table shows the relative value of feeds as milk producers:

Timothy	per 100 lbs.	\$0.50
Clover Hay	per 100 lbs.	.60
Corn	per 100 lbs.	.50
Barley	per 100 lbs.	.55
Oats	per 100 lbs.	.60
Wheat	per 100 lbs.	.65
Wheat Bran	per 100 lbs.	.70
Oil Meal	per 100 lbs.	1.45

Price, \$5.25. Write for prices; this quotation estimate only.

COCOANUT OIL MEAL

The successful feeder is the one who studies carefully the feeding values of his rations to see that he is giving exactly the proper amount of nutrition at the least possible expense.

"The real value of any feeding stuff is determined not alone by its composition, but also by its digestibility; that is, by the amount of material that it gives up to the body in its passage through the digestive tract. It is evident that if two feeding stuffs have practically the same composition but one gives up more material to the body than the other,—that is, is more thoroughly digested—it must actually be more valuable than the other material.

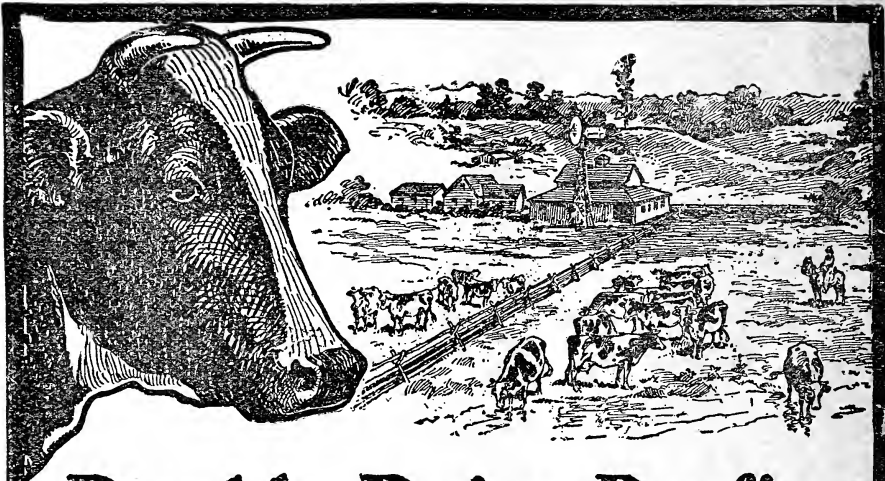
Due to the fact that the oil remaining in Coconut Oil Meal is chemically almost identical with the butter fats of whole milk, this food is naturally the best adapted for mixing with skim milk as a food for calves. The present very high prices of meat makes the proper care of the calves a very important factor in the profits of the dairyman.

Comparative Analysis of Leading Foods.

	Dry Matter in 100 lbs.	Pro- tein
Wheat hay	91.2	3.6
Alfalfa hay	89.1	12.3
Beans	87.4	17.4
Barley hay	91.5	5.8
Barley, rolled	90.0	9.3
Corn	89.4	8.6
Oats	89.0	9.2
Rye	88.4	7.5
Wheat, Plump	88.5	9.2
Wheat, Shrunken	91.7	13.2
Corn Meal	88.0	6.4
Shorts	90.2	12.2
Wheat Bran	88.3	11.2
Cocoanut Oil Cake Meal	85.9	16.4

Samples sent on application. Price, \$3.75.

Write for prices. This quotation estimate only.



Double Dairy Profits

Why feed high priced milk to calves or throw money away by knocking them in the head or selling them for a dollar or two at birth when they can be raised or vealed *without milk* at a fraction of the cost of feeding milk.

Ryde's Cream Calf Meal
 RICHEST SUBSTITUTE FOR MILK

Costs Far Less Than Milk to Feed

This is a complete food for calves—the most successful milk substitute on the market—containing all the various food elements necessary for rapid growth in the most digestible form. Calves thrive on it better than anything else.

100 lbs. equal in feeding value to 800 lbs. new milk.

Thousands of farmers are using Ryde's Cream Calf Meal in preference to anything else claiming it—Saves milk—Costs less—Raises better calves.

Fully Guaranteed to Give Perfect Satisfaction. TRY IT!

The Calf you Raise is the Calf that Pays

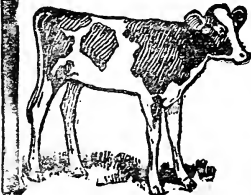
SOLD IN 25 LB. BAGS

50 LB. BAGS

100 LB. BAGS

RYDE & CO. Special Feed Manufacturers Chicago, Ill.

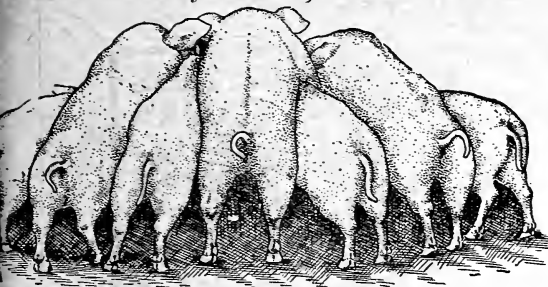
SEND FOR FREE BOOK



25-lb. bag	\$1.85
50-lb. bag	\$3.50
100-lb. bag	\$6.75



Ryde's Pig Meal



MAKING HOGS OF THEMSELVES

The secret of success in raising hogs is rapid growth and reducing the death loss of the younger pigs. The most important item is the feed for the young pigs, particularly, at the time when they are starting to shift for themselves. They require a feed that they relish, that is easily digested and that supplies them with all the various food elements necessary for their rapid and symmetrical growth.

RYDE'S PIG MEAL.

is the greatest pig developer on the market today. It contains every possible ingredient in the correct proportion that they require to push them forward to maturity in the shortest possible time. It is made for this purpose only, and contains every constituent that pigs require to nourish them properly and in the most digestible form. In composition and results it is the same as new milk, but at far less in cost of feeding.

One pound of RYDE'S PIG MEAL will make one gallon of rich, nutritious gruel. It keeps young pigs strong and healthy and makes them grow rapidly. They will dress up in quality like a milk-fed hog at less than one-third the expense of feeding milk. 25-lb. bag, \$1.90; 50-lb. bag, \$3.65; 100-lb. bag, \$7.00.

DIGESTER TANKAGE

Every well informed feeder knows that corn and other home grown feeding stuffs lacks protein and phosphates.

To supply these materials in most economical form Experiment Stations and Progressive Feeders now recognize Digester Tankage as being the best and cheapest that can be secured.

Brood sows must have plenty of protein and phosphates in their rations, otherwise they will farrow weak, puny pigs, defective in bone and muscle. Digester Tankage is appetizing and helpful when fed to newly weaned pigs.

Hogs on clover or alfalfa pasture if fed a little Digester Tankage will be improved and cost of grains greatly reduced. Unable to make quotation now.

STOCK TONICS

Conkey's

COW SPECIAL—Is strictly a medicine—a preventive measure—a tonic—an aid in the treatment of certain cow disorders when used as directed. Cow special does not contain any filler. If consumers are not satisfied with the results obtained we will cheerfully refund the purchase price. Pkg., \$1.20. Postpaid, \$1.30.

HORSE REMEDY—A stimulating medicine for debilitated and exhausted conditions. \$1.20 per bottle; not mailable.

STOCK TONIC—It keeps up appetite, insures full digestion of the ration, prevents waste of feed, that is, brings you the most possible return for every pound of feed. Not a food itself, but a medicine. 30c. 60c. \$1.20; 12 lbs. (pail), \$2.25; mailing weight, 2 lbs., 4 lbs., 8 lbs., 17 lbs.; add postage.

Gold Coin

CATTLE TONIC—Feed Cattle Tonic for loss of appetite, to increase flow of milk, to cure scours, to aid in fattening and finishing of steers, to prevent and cure scour in calves. 60c packages; 25-lb. pail, \$3.75; mailing weight, 2 lbs.; 4 lbs., 30 lbs.; add postage.

HOG TONIC WORM EXPELLERS—Hog Tonic is a medicinal tonic made from the roots, barks, seeds and herbs required by Nature to keep the system of hogs in healthy condition, for overcoming and preventing diseases and worms in swine, and to aid digestion and quick fattening. A splendid stimulant for the internal treatment of hog cholera. 60c pkgs.; 25-lb. pail, \$3.75; mailing weight, 4 lbs., 30 lbs.; add postage.



HORSE TONIC—Horse Tonic hardens the muscles. It aids digestion. It purifies the blood and sleekens the coat. It clears the water, regulates the bowels, cures and prevents disease. Price, 60c and \$1.20 packages; 12½-lb. pails, \$2.25; 25-lb. pails, \$3.75; mailing weight, 4 lbs., 7 lbs., 17 lbs., 30 lbs.; add postage.

STOCK REMEDIES

Conkey's

COLIC REMEDY—A lifesaver and should be on hand for emergency. 60c; postpaid, 65c.

DISTEMPER FEVER AND COUGH REMEDY—For all cases of cough, cold, chill and fever, epizootic, distemper or strangles, pink eye, etc. 60c; postpaid, 65c.

Eye Remedy, 60c; postpaid, 65c.

HEALING POWDER—A wonderful gall cure. For chafes, sores, etc. 30c; postpaid, 35c.

HEAVE REMEDY—Corrects digestive disturbance as well as nervous derangement, \$1.20; postpaid, \$1.25.

HOOF REMEDY—Keep's your horse's hoofs in nice shape. Pt., 60c; postpaid, 70c.

Gold Coin

GOLD AND DISTEMPER REMEDY—A specific for distemper in young or old horses. Pkg., 60c; postpaid, 70c.

COLIC REMEDY—Cures wind colic, bloat, spasmodic colic stoppage of urine, etc. Bottle, 60c. Not mailable.

COMPOUND LINIMENT—Rub the affected parts thoroughly with the liniment. Bandage only when a blister is desired. Bottle, 60c. Not mailable.

STOCK REMEDIES—Continued.

CONDITION POWDER—For sick animals. A high class medicine for fevers and all acute diseases. Package, 60c; postpaid, 70c.

COUGH AND LUNG SYRUP—This is a cough syrup for horses, cattle, sheep or hogs. It is important to attend to all lung diseases promptly. Bottle, 75c and \$3.50. Not mailable.

FOOT REMEDY—Quickly cures sore feet, lameness from corns, sand cracks, quarter cracks, contracted heels, etc. Can, 60c. Not mailable.

Fly Blister, \$2.00; postpaid, \$2.05.

FLY KILLER—All the time your stock are bothered by flies you are losing your profits. Use it on your horses and cattle night and morning. Does not injure the hide, odor will not taint milk. Keeps flies off, kills very one it hits, prevents lice and grub. Qt., 60c; 2 qts., 90c; gal., \$1.50. Not mailable.

GALL SALVE—For sores on neck, shoulders and back from rubbing of harness or saddles. All cuts or wounds on horses. Can, 30c, 60c; 35c and 65c postpaid.

HEALING OIL—For barb wire cuts, nail injuries, burns, flesh wounds or cuts. Bottle, 30c and 60c. Not mailable.

HEAVE REMEDY—It is the best and cheapest heave cure. Package, 60c; postpaid, 70c. Hoof Ointment, \$1.00; postpaid, \$1.10.

LUMP JAW—Cures the disease known as lumpy jaw, which is due to a micro-organism. \$2.00; postpaid, \$2.05.

SOAP—HARNESS—For cleaning and polishing harness, buggy tops. Can, 30c; postpaid, 40c.

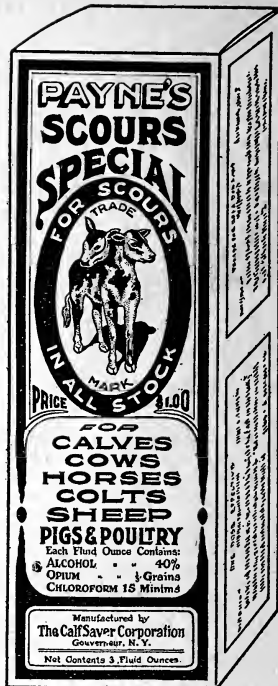
SPAVIN REMEDY—For curable spavins. Quickly reduces all soft swellings as "bog" spavin, blood spavin, swollen joints, inflammation, etc. Bottle, \$1.50. Not mailable. Put up also in paste form, \$2.00.

WORM POWDER

—Kills all worms and bots in horses, hogs, sheep, dogs, etc. Package, 60c; postpaid, 70c.

PAYNE'S SCOURS SPECIAL

It is well known that scours in calves is a source of great annoyance and loss. This should be given immediate attention, so that it may be the more easily checked. Paynes' Scours is also used for cows, horses, sheep, pigs and poultry. Full directions on each bottle. \$1.20. Not mailable.

**BEE SUPPLIES**

DOVETAILED HIVES—The dovetailed hive is now the leading hive, as it contains many of the most desirable features of the various hives for the rapid handling of bees, and is one of the cheapest and best hives manufactured.

DESCRIPTION—The body is $\frac{7}{8}$ inch thick, and is fitted with metal rivets of an improved style. Outside of body is $13\frac{1}{2} \times 20$ inches, and $9\frac{1}{2}$ inches long. The body holds eight Hoffman frames, L size, and a division board. The frames hang below the top edge of the hive, so that there is a bee space above them, but the bottoms of the frames are flush with the bottom edges of hives, the bee space being made by the projection of the sides and can be enlarged or decreased by inverting bottom board. The bottom is 14×21 inches. The cover is made with grooved cleats at each end to prevent warping. The supers are the same size as the body of hive, but only half the depth, so that when two are put together they make a full-depth body. The inside width of the body is $12\frac{1}{2}$ inches giving room for eight frames and a division board. There are objections to using sections other than $4\frac{1}{2} \times 4\frac{1}{2}$, as they require special sized shipping cases and special sized cartons.

Complete hive consists of 1 body, 1 super, 1 bottom board, 1 cover, 8 Hoffman brood frames, 2 wedges for super, 6 section holders, 6 slotted separators.

Eight-Frame Hive

1 story hive, nailed, no division board, \$3.00; 5 K. D., \$13.50.

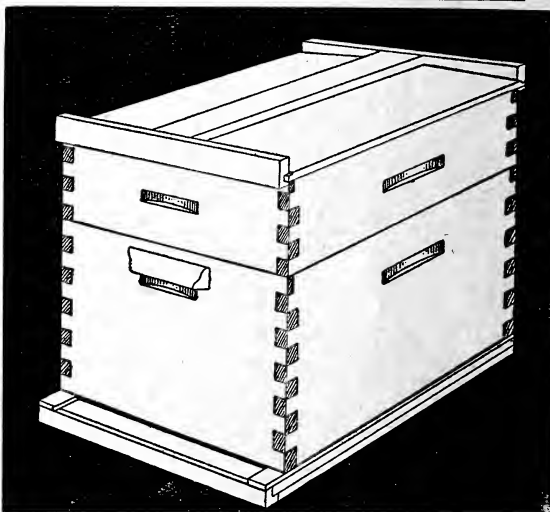
$1\frac{1}{2}$ story hive, nailed, no division board, \$3.75; 5 K. D., \$17.00.

1 super, shallow, nailed, no division board, \$1.00; 5 K. D., \$4.50.

1 super, $5\frac{1}{2}$ -in. deep, nailed, no division board, \$1.15; 5 K. D., \$5.00.

Ten-Frame Hive

1 story hive, nailed, no division board, \$3.25; 5 K. D., \$15.00.



$1\frac{1}{2}$ story hive, nailed, no division board, \$4.00; 5 K. D., \$19.00.

1 super, shallow, nailed, no division board, \$1.10; 5 K. D., \$5.00.

1 super, $5\frac{1}{2}$ -in. deep, nailed, no division board, \$1.25; 5 K. D., \$5.50.

Division boards for brood chamber. Doz., \$1.75; 50, \$6.50; 100, \$12.00.

Division boards for deep supers. Doz., \$1.50; 50, \$5.50; 100, \$10.00.

Section holders, slotted. Each, 6c; 50c, \$2.50; 100, \$4.75. Weight, 100, 35 lbs.; add postage.

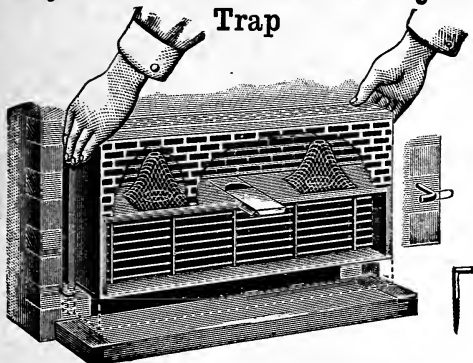
Slotted separators. Each, 3c; 50, \$1.25; 100, \$2.00. Weight, 100, 8 lbs.; add postage.

Spring steel hive tool. Each, 75c.

Super followers. Doz., \$1.00; 50, \$3.50; 100, \$6.50.

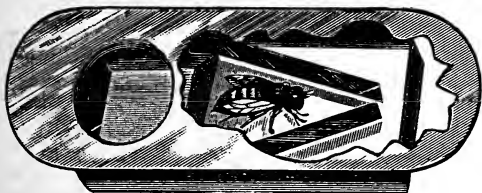
Super springs. Doz., 35c; 50, \$1.25; 100, \$2.00.

Alley's Combined Drone and Queen Trap



A perfect non-swarming arrangement. Weight 1 lb. 75c; postpaid, 80c.

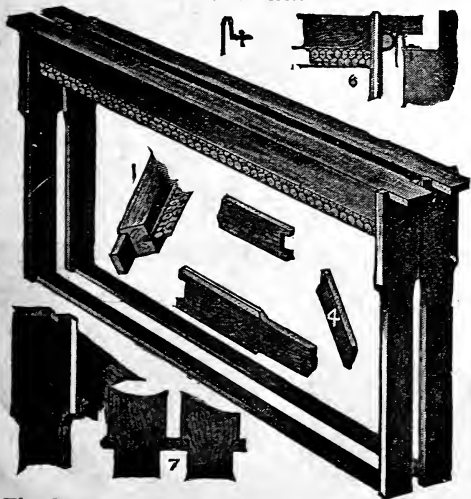
Bee Escapes



Porter

No apiarist can afford to be without bee-escapes. In taking off honey it is the greatest labor saving device that has been introduced in late years. It avoids shaking heavy spurs to get the bees out. Single, 25c; single, with board, 55c; double, 30c; double, with board, 60c. Add 5c for postage.

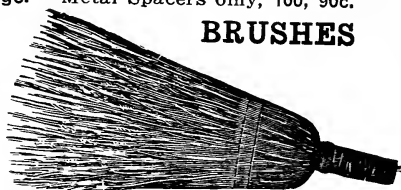
Brood Frames



The Hoffman Improved Foundation Fastening Frames are the latest and best brood frames. The top bar is made with a beveled strip which holds the foundation in place, perfectly straight and exactly in center to top bar. It seems to combine in itself nearly all the good features and for a hanging frame it is the best self-spacer we know of. It economizes labor in that it can be handled in groups of three or four; and any particular frame can be removed without thumbing over nearly all the other frames in the hive to get room. Price, 8, 90c; 50, \$5.00; 100, \$9.50; weight, per 100, 50 lbs.; add postage.

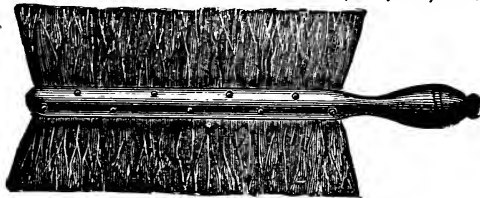
Shallow Extracting Frames: Price, 8, 60c; 50, \$3.25; 100, \$6.25; weight of 100, 25 lbs.; add postage. Metal Spacers only, 100, 90c.

BRUSHES



Cogshalls

This is a sort of whisk broom especially adapted and made for brushing bees. The strands are thinned out and longer, so as to give a soft, pliable sweep to the combs. 50c; postpaid, 55c.



Dixie

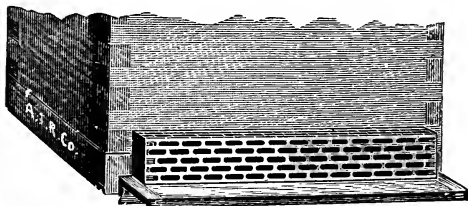
It is a double brush with a strong wood handle, put together with brass nails to avoid rust. The strands are soft and pliable to give an easy, gentle sweep. 50c; postpaid, 55c.

Comb Foundation

Size of Sheet.	No. Per to lb. lb.	Per 5-lb.	Per 10-lb.
Medium Brood, $7\frac{7}{8} \times 16\frac{7}{8}$	7	\$0.95	\$0.90
Light Brood, $7\frac{7}{8} \times 16\frac{7}{8}$	9	1.00	.95
Thin Super, $3\frac{3}{4} \times 15\frac{1}{2}$	28	1.05	1.00
Ext. Thin, Super, $3\frac{3}{4} \times 15\frac{1}{2}$	30	1.10	1.08

Add postage.

Entrance Guards



These are to admit workers, and to exclude drones. After the drones are all out, fix guards over the entrance and at night the drones can be destroyed. For 8 and 10 frame hives. 30c; by mail, 35c.

Extractors

Cowan's Rapid Reversible Honey Extractor.

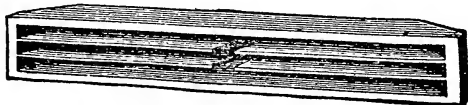


Two-frame Cowan's Reversible for Regulating Frames. Price \$34.00.

If there is any one thing that is more essential to the successful manipulation of bees, aside from a good bee smoker, that one thing is a good honey extractor. If you have but ten colonies of bees it will pay you to have an extractor. Indeed, it would pay for itself in one good season, as oftentimes the brood combs become so filled with honey that the queen is crowded for room, and this honey should be extracted, and could be sold in the extracted form or used in feeding back for completing partly filled sections. Made of best steel.

Feeding

Bees are fed for two purposes: to stimulate brood-rearing or to supply them with necessary stores for winter. For stimulating, a pint to a pint and a half of syrup daily either at the entrance at night or inside the hive should be given until the required amount of brood is reared. In preparing for winter it is better to give the necessary stores all at one feed. The feeder should be filled with syrup by mixing together granulated sugar and water in equal proportions by measure and stirring or heating until thoroughly dissolved.

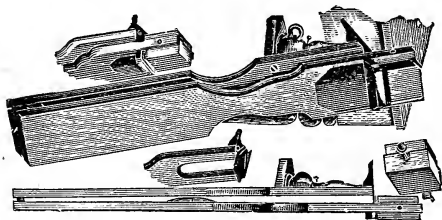


SIMPLICITY

The Simplicity may be placed at the entrance at night, over the brood frames, by placing on top of the hive or in the brood-nest itself, if a couple of frames are removed. 25c; by mail, 30c. 20c.

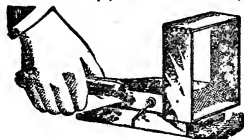
MILLERS—Sets on hive like a super. Holds about 25 lbs. of syrup. K. D. 65c; postpaid, 70c.

Foundation Fasteners



DAISY

This is the best for putting starters into sections. Nothing could be more simple or more easily operated than this machine. With this a boy or girl will put starters in about 500 sections per hour. Weight, 6 lbs.; without lamp, \$1.50; with lamp, \$2.00; add postage.



PARKERS

The Parker Fastener is a cheap machine for fastening starters. With a little practice it can be made to work very satisfactorily. Price, 50; postpaid, 55c.

Gloves



Gloves for protection of the hands and wrists are almost indispensable.

Rubber, with sleeves: Gents' No. 10, 11, 12. Unable to make quotation at present.

Canvas with sleeves, medium and large, \$1.25; postpaid, \$1.30.

Honey Knife



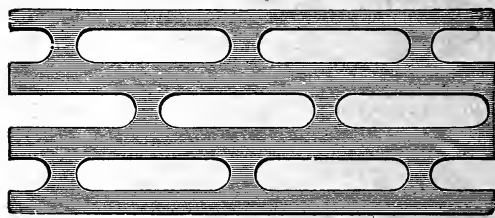
Price, \$1.75; postpaid, \$1.80.

Queen Cages

The cover, to insure prompt delivery, is printed in exact fac simile of cut. On the reverse side are printed directions for introducing Queens.....10c..each



Queen Excluding Zincs



This is used between the upper and lower stories, to prevent the queen going up above. It is also used in making entrance guards, queen and drone traps, etc.

For 8-frame hive, unbound, 12x19. 50c.

For 8-frame hive, wooden bound, 13x19. 60c.

For 10-frame hive, unbound, 14x19. 60c.

For 10-frame hive, wooden bound, 16x20. 70c. Add 5c each for postage.

Owing to the uncertainty of the price of zinc, prices quoted for all items which include zinc in their make-up are not guaranteed and items will only be sent out at prices prevailing when order is filled.

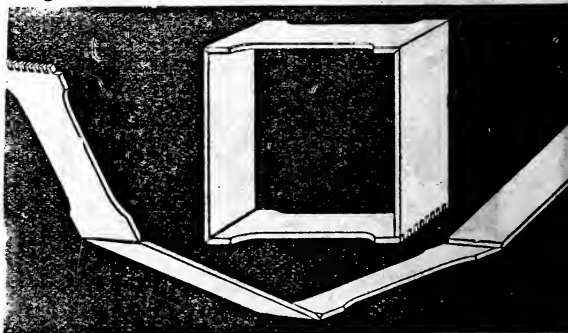
Bee Books

The Amateur Bee Keeper, by Prof. J. W. Rouse, 80 pages, 50c; postpaid, 55c.

The A B C and X Y Z of Bee Culture, by A. I. Root, \$2.75; postpaid, \$2.85.

Section Honey Boxes

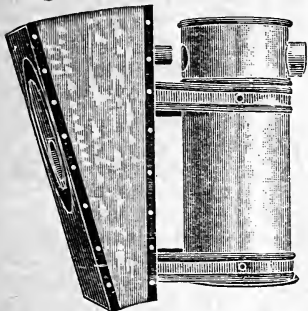
No. 1 SECTIONS—Are made of the choicest white basswood lumber, and all are perfect in finish and free from defects. They are not all snow-white, but vary from that to light cream colors. Price, per 25, 50c; 100, \$1.25; 500, \$6.00; 1000, \$11.50; weight, 7 lbs. per 100; add postage.



No. 2 SECTIONS—Selected from the best grade, sell at a price less than the No. 1. Most of them are equal to No. 1 except in color; some have dark spots, saw marks, or other blemishes which excludes them from the No. 1 grade. Price per 25, 45c; per 100, \$1.15; per 500, \$5.50; per 1000, \$11.00; weight, 7 lbs. per 100; add postage.

Smokers

Every bee keeper needs a smoker. A little smoke puffed in at the entrance of a hive before opening it causes the bees to fill themselves with honey, and with their honey sacs well filled they become docile and their hive can be opened without much risk of the manipulator being stung.



Acme.

Acme — This is undoubtedly the best Cold Blast Smoker on the market. It has no tube in the fire box to clog. It throws a large volume of smoke at RIGHT angles to the fire box without a curved nozzle to lessen the blast. In fact, it is the perfection of smokers.

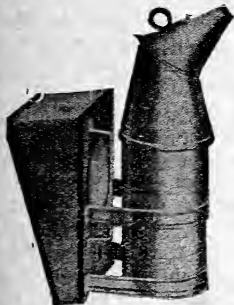
Price, \$1.00.

Weight, 2 lbs.

Add postage.

BINGHAM—This is a strong, well-made smoker; does not clog up and will burn any fuel. This smoker resembles the Higginsville very much in appearance. In the Higginsville the nozzle or detachable snout fits over the outside of the smoker, while in the Bingham it fits on the inside. In the Higginsville the nozzle is not attached to the smoker, while in the Bingham the nozzle is attached by means of an open hinge, but can be removed at will.

Price, \$1.50. Weight, 2 lbs.; add postage.



Higginsville

This smoker is, as its name implies, strictly a Higginsville product. It is a hot blast, and has a 3¼-inch fire box, and the nozzle is detachable to admit of filling or cleaning. It has as strong a blast as any smoker made. Price, \$1.25. Weight, 2 lbs. Add postage.

Veils

A great necessity and very cheap. Cotton; silk face. \$1.25; postpaid, \$1.30.

Globe—Has five bars that will keep veil away from head. Price, \$1.75; postpaid, \$1.80.



Globe.

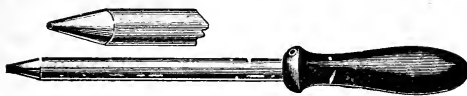
Swarm Catcher



Manum

This swarm catcher is the best article of its kind on the market, and it will be found a valuable addition to the appliances of the apiary. Without pole. Price, \$2.25. Weight, 3 lbs.; add postage.

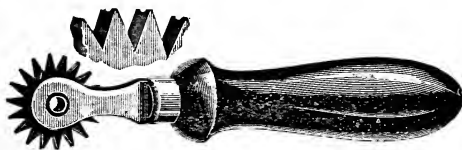
Wax Tube Fastener



VAN DEUSEN

For fastening the foundation sheets to thin top-bars there is nothing better than the Van Deusen wax tube. It is simply a brass tube half an inch in diameter, six inches long and tapering. This is filled with hot wax and the point is then slowly drawn along the edge of the foundation in contact with the top-bar, leaving a fine stream of hot wax to cement it. 30c; by mail, 35c.

Wire Imbedder



The latest spur wire imbedder is a most decided improvement over the old one. The teeth are wider and grooved in the direction of the circumference midway across front of teeth, so that the wheel will easily follow the wire. 40c; by mail, 45c.

Wire



No. 30 Tinned Wire seems to be the most suitable of any for wiring frames.

¼-lb. spools, each, 25c

½-lb. spools, each, 40c.

1-lb. spools, each, 65c.

Postpaid, 30c, 45c, 75c.

Best crop results can be obtained only from rich soil. See descriptions and price of our Fertilizers. 30 tons of Sheep manure--30 tons of Land Plaster and 20 tons of Gromore to supply your needs. A good supply of others.

SHORT TALK ON BEES

With very little attention at the proper time a colony of bees will not only be self-supporting, but will lay up a surplus of the most delicious sweet known.

SPRING

Is the time when bees are in the most danger of starving. If they should be short of honey, feed them so they will keep up brood rearing and be strong in number of young bees at the time the honey flow begins, and they will store surplus honey rapidly. A weak colony never makes surplus honey, but in many cases is completely destroyed by moths. Moths never trouble a strong colony of bees. When pollen is scarce in the spring, put some flour where the bees can get it to use instead of pollen.

A QUEENLESS COLONY

Can usually be found by observing whether or not the bees are carrying pollen on their legs. If they carry pollen for the young bees it is almost certain that there is a queen in the hive. If they do not carry pollen (except late in the fall), it is most likely there is no queen. Take from another hive a frame of brood and eggs (little white objects about the size of a pin and one-eighth of an inch long in the bottom of the cells) and place in the queenless colony and in less than three weeks they will have another queen. However, in the spring it will pay you far better to purchase a queen and introduce to the queenless colony.

SMOKING

The bees is almost necessary before attempting to handle them. A few puffs of smoke at the entrance a moment before opening the hive, and a little smoke between the frames immediately after opening the hive will usually be sufficient to make the bees fill themselves with honey, when there will be but little danger of being stung while handling them.

A VEIL

Should be worn to protect the face from stings, especially by a novice. All movements should be gentle, as nothing irritates the bees more than a sudden jar or the breath of the operator blown into the hive. Cotton gloves may be worn, but never wear woolen gloves when handling bees.

PUT SUPERS ON

Your hives with sections and comb foundation starters in the spring as soon as you find the bees building white edges on the combs in the brood chamber. When one super is nearly filled raise it and place an-

other empty super under it. Always leave the super on the hive until the bees have ripened and sealed all of the honey; then by placing a board with a bee escape in it below the super, you can clear it entirely of bees in twenty-four hours, when it can be removed and the honey taken out without trouble.

ROBBING

Is generally started by carelessly leaving honey or other sweets where the bees can get to them outside of the hives; after gathering it they will attack some weak colony and rob it of its honey, besides killing many bees and possibly the queen, in this way ruining the colony. Robbing will be noticed by the restless manner of the bees in front of the hive being robbed, the bees frequently fighting. The way to stop robbing is to close the entrance almost entirely, so that only one bee can pass at a time, then cover it with straw or grass sprinkled with water, in order to make it hard for the bees to pass through. Young bees fly thick in front of a hive, but always keep their heads toward the front of the hive, and must not be taken for robbers which dart quickly into the hive.

HIVING SWARMS

When they come out, have a hive ready with full sheets of comb foundation in the brood frames or at least starters in the frames; sprinkle the swarm and shake it into the hive or in front of the hive, and let the bees run in at the entrance. Watch for the queen, and be sure that she enters the hive. Remove the old hive some distance from the old stand, place the new hive in the place where the old hive stood, and place a super on at once for best results.

TO WINTER

Successfully out of doors see that the colony has at least twenty-five pounds of honey, and is sheltered from the wind. If the colony is short of stores, it must be fed. For best winter protection, see Farmers' Bulletin No. 1012, to be obtained from the U. S. Department of Agriculture, Washington, D. C.

FEEDING BEES

Is usually done because the bees do not have enough honey to last them until the fruit or flowers bloom; but may be done to stimulate brood rearing just before the honey flow. This should be done before freezing weather.

WHAT TO FEED

Take granulated sugar and the same quantity of water and pour it into a vessel; put

it on the stove and heat it slowly, stirring it well and being careful not to heat it to the boiling point, or you may scorch the syrup. Scorched feed will kill the bees. When the syrup is cool it may be fed with any of the feeders made for the purpose, being very careful not to get robbing started.

TRANSFERRING

Of bees from old boxes to up-to-date hives can best be done in early spring.

MOVING BEES

Can be done at most any season of the year, except during extreme cold weather, by nailing screen wire over the entrance and removing the cover, securely fastening screen wire over the top of the hive, leaving off the cover to prevent overheating the bees. It is not advisable to haul them long distances during hot weather, unless they can be taken at night, and not be kept confined too long, or the combs will break out of the frames.

WHEN STUNG

By a bee, either brush out the sting quickly by brushing hard against your clothes, or by digging it out with the finger nail. Don't squeeze the little bag of poison at the end of the sting, or you will force the poison into your flesh, causing greater swelling. A small piece of ice or a little cold water applied for a minute directly on the place stung will materially decrease the swelling.

SOME DON'TS FOR BEGINNERS

DON'T leave single wall hives unprotected and exposed to the cold winter winds; they will either die or be very weak in the spring, when they should be the strongest. Better wrap the hives with heavy paper, or cover them with straw, leaving the entrance open and facing the south.

DON'T winter bees in a cellar or room where the temperature varies much. The temperature of the cellar should be 40 to 45 degrees. The cellar should also be dry, dark and have sufficient ventilation.

DON'T close the entrance to the hive on warm winter days; let the bees fly; it is best for them.

DON'T set your hives where the sun will shine on them too much and make them quite warm on cool days, or many will be lost on account of flying and being too cold to return to the hive.

DON'T fail to look after the bees in the spring; one bee in March is worth more to you than a dozen bees after the honey season is over.

DON'T fail to put comb foundation starters in your section boxes, or the bees will build the comb the wrong way. Starters or full sheets should be used in the brood frames, to get straight combs; besides the time saved the bees in gathering about ten pounds of honey to build one pound of comb will well pay you to use foundation.

DON'T remove the honey from the hives until sealed and thoroughly ripened; it is of much better quality if left in the hive a few weeks.

DON'T fail to be ever on the alert for a very destructive and highly contagious disease among bees.

FOUL BROOD

The two diseases of the brood of bees, American foul brood and European foul brood, are causing considerable loss in some parts of the United States, and are becoming very widespread. Many bee keepers are losing colonies without being aware that they have foul brood in the apiary.

If either disease enters the neighborhood or the apiary, the beekeeper should not be discouraged. Any careful person who learns how to treat diseased colonies can continue to keep bees with profit even though disease is raging on all sides of him.

For further information, write the Department of Agriculture, Washington, D. C., for Farmers' Bulletin No. 442.

You can also find out from the Department of Agriculture whether any disease has so far been found in your county, and who your apiary inspector is. This is information which you should have.

See Pages 1-3 for
Our Specials

Add Postage Where
Necessary

NUMBER OF PLANTS TO ACRE

Dist. Apart	Plants	Dist. Apart	Plants	Dist. Apart	Plants	Dist. Apart	Plants
12x 1 in.	522,270	25x18 in.	15,520	36x36 in.	4,840	60x60 in.	1,745
12x 3 in.	174,240	30x 1 in.	209,088	42x12 in.	12,446	8x 1 ft.	5,445
12x12 in.	43,560	30x 6 in.	34,848	42x24 in.	6,223	2x 3 ft.	1,815
16x 1 in.	382,040	30x12 in.	17,424	42x36 in.	4,148	8x 8 ft.	680
18x 1 in.	348,480	30x16 in.	13,068	48x12 in.	10,890	10x 1 ft.	4,356
18x 3 in.	116,160	30x20 in.	10,454	48x18 in.	7,790	10x 6 ft.	726
18x12 in.	29,040	30x24 in.	8,712	48x24 in.	5,445	10x10 ft.	435
18x18 in.	19,360	30x30 in.	6,970	48x30 in.	4,356	12x 1 ft.	3,630
20x 1 in.	313,635	36x 3 in.	58,080	48x36 in.	3,630	12x 5 ft.	736
20x20 in.	15,681	36x12 in.	14,520	48x48 in.	2,723	12x12 ft.	302
24x24 in.	10,890	36x18 in.	9,640	60x36 in.	2,901	16x 1 ft.	2,722
24x 1 in.	261,360	36x24 in.	7,260	60x48 in.	2,178	16x16 ft.	170

QUANTITY OF SEED TO ACRE

Alfalfa	8 to 15 lbs.	Rye Grass, Oat Grass, Fescue Grasses	30 lbs.
Alyske	6 to 15 lbs.	Orchard Grass	20 to 30 lbs.
Artichoke, 1 oz. to 500 plants	6 oz.	Horse Radish Roots	15,000 to 20,000
Asparagus, 1 oz. to 500 plants	1 lb.	Kale, 1 oz. to 150 feet of drill	1 lb.
Barley	60 to 75 lbs.	Kale, thousand headed	1 lb.
Beans, Dwarf, 1 lb. to 100 feet of drill	50 lbs.	Kohl Rabi, 1 oz. to 150 feet of drill	2 lbs.
Beans, Tall, 1 lb. to 150 hills	25 lbs.	Kaffir Corn	6 to 8 lbs.
Beet, garden, 1 oz. to 50 feet of drill	5 lbs.	Leek, 1 oz. to 100 feet of drill	4 lbs.
Beet, sugar, 1 oz. to 50 feet of drill	5 lbs.	Lettuce, 1 oz. to 150 feet of drill	3 lbs.
Beet, Mangel Wurzel, 1 oz. 50 ft. drill	5 lbs.	Melon, Musk, 1 oz. to 60 hills	2 to 3 lbs.
Broccoli, 1 oz. to 2,000 plants	4 oz.	Melon, Water, 1 oz. to 30 hills	3 to 4 lbs.
Brussels Sprouts, 1 oz. to 2,000 plants	4 oz.	Millet	30 lbs.
Broom Corn	12 lbs.	Nasturtium, 1 oz. to 50 feet of drill	15 lbs.
Buckwheat	45 lbs.	Oats	75 lbs.
Cabbage, 1 oz. to 1,500 plants	½ lb.	Okra, 1 oz. to 100 feet of drill	8 lbs.
Carrot, 1 oz. to 125 feet of drill	3 lbs.	Onion, 1 oz. to 100 feet of drill	4 to 8 lbs.
Cauliflower, 1 oz. to 2,000 plants	3 oz.	Onion, for sets	30 to 40 lbs.
Celery, 1 oz. to 5,000 plants	1 lb.	Onion Sets, 1 lb. to 75 feet of drill	400 lbs.
Chicory, 1 oz. to 100 feet of drill	4 lbs.	Parsley, 1 oz. to 300 feet of drill	3 lbs.
Clover, White	6 to 10 lbs.	Parsnip, 1 oz. to 200 feet of drill	6 lbs.
Clover, White, for lawns	25 to 100 lbs.	Peas, Garden, 1 lb. to 50 feet of drill	60 lbs.
Clover, Red and Crimson	12 to 20 lbs.	Peas, Field	100 lbs.
Clover, sweet, hulled	15 lbs.	Pepper, 1 oz. to 100 plants	400 to 600 lbs.
Clover, sweet, unhulled	20 lbs.	Potatoes	3 to 4 lbs.
Collards, 1 oz. to 2,000 plants	4 oz.	Pumpkin, 1 oz. to 30 hills	10 lbs.
Corn, Sweet, 1 lb. to 200 hills	8 to 12 lbs.	Radish, 1 oz. to 100 feet of drill	5 to 10 lbs.
Corn, field	8 to 12 lbs.	Rape, Dwarf Essex	2 lbs.
Corn, fodder	8 to 20 lbs.	Rutabagas, 1 oz. to 150 feet of drill	60 to 80 lbs.
Corn, Pop	8 to 12 lbs.	Salsify, 1 oz. to 50 feet of drill	8 lbs.
Cress, 1 lb. to 100 feet of drill	1 lb.	Speltz	75 lbs.
Cucumber, 1 oz. to 60 hills	2 to 3 lbs.	Spinach, 1 oz. to 100 feet of drill	8 lbs.
Egg Plant, 1 oz. to 2,000 plants	4 oz.	Squash, Summer, 1 oz. to 25 hills	3 lbs.
Endive, 1 oz. to 100 feet of drill	4 oz.	Squash, Winter, 1 oz. to 12 hills	4 lbs.
Flax, for seed, 30 lbs to acre; for fibre	50 lbs.	Sugar Cane	10 lbs.
Grass, Brome	25 lbs.	Sunflower	8 lbs.
Grass, lawn, 1 lb. to 300 sq. feet	80 lbs.	Tomato, 1 oz. to 2,000 plants	4 oz.
Grass, Kentucky Blue, Canadian Blue	20 lbs.	Turnip, 1 oz. to 150 feet of drill	2 lbs.
Grass, Sudan	10 lbs.	Vetches, Spring	60 to 90 lbs.
Timothy	6 to 12 lbs.	Vetches, Winter	30 to 60 lbs.
Red Top	10 to 15 lbs.	Wheat	60 to 80 lbs.

WEIGHT OF SEED PER BUSHEL

Clovers:		Barley, Hulled	60	Red Top, Hulled	36	Liberty	50
Alfalfa	60	Corn, Ear	70	Rye, English	25	Siberian	50
Alyske	60	Corn, Shelled	56	Rye, Italian	22	White Wonder	50
Crimson	60	Oats	32	Sudan	22		
Red	60	Rye	56	Tall Meadow Oat	14	Miscellaneous:	
Sweet, Hulled	60	Wheat	60	Timothy	45	Buckwheat	50-48
Sweet, Unhulled	40					Flax	56
White	60	Grasses:		Millet:		Peas, Smooth	60
Grains:		Blue	14	Hog	50	Peas, Wrinkled	56
Barley	48	Brome	14	Hungarian	48	Onion Sets, Bot-	
		Orchard	14	Japanese	40	toms	32

USUAL DISTANCE FOR PLANTING

Bushes:		Roots:		Onions, drills, 2 to 3 ft.
Blackberries, 8x4 ft.		Asparagus, 2x3 ft.		Parsnips, drills, 2 to 3 ft.
" Mammoth, 8x12 ft.		Potatoes, 18 in. by 3 ft.		Peas, drills, 2 to 3 ft.
Currants, 5x3 ft.		Rhubarb, 3x4 ft.		Peas, broadcast, acre, 150 lbs.
Dewberries, 8x4 ft.		Sweet Potatoes, 2x4 ft.		Pumpkins, 8x8 ft.
Gooseberries, 5x3 ft.				Radishes, drills, 1 to 2 ft.
Raspberries, 7x3 ft.		Seeds:		Salsify, drills, 1 to 2 ft.
		Beans, Bush, drills, 3 ft.		Spinage, drills, 1 to 2 ft.
Plants:		Beans, Pole, 3x3 ft.		Squash, Bush, 3x4 ft.
Cabbage, Early, 16x30 inches.		Beets, Table, drills, 2x2½ ft.		Squash, Running, 8x8 ft.
Cabbage, late, 24x30 in.		Beets, Stock, drills, 2x3 ft.		
Cauliflower, 2x3 ft.		Carrots, drills, 2x2½ ft.		
Celery, 6 in. by 4 ft.		Corn, Sweet, 2x3 ft.		
Egg Plant, 3x5 ft.		Corn, Field, 3x3 ft.		
Peppers, 18 in. by 2½ ft.		Cucumbers, 4x4 ft.		
Tomatoes, 4x4 ft.		Lettuce, drills, 1x2 ft.		
Strawberries, hills, 1½x3 ft.		Melon, Musk, 5x5 ft.		
" matted rows, 1x3 ft.		Melon, Water, 7x7 ft.		

Trees:

Apple, 30x30 ft.
Cherry, 20x20 ft.
Peach, 20x20 ft.
Pear, 20x20 ft.
Plum, 20x20 ft.
Quince, 20x20 ft.

THE INLAND SEED CO.

**SPOKANE,
WASH.**

THE INLAND SEED CO. gives no warranty, express or implied, as to description, purity, productiveness or any other matter of any seeds, bulbs, plants or roots they send out, and they will not be in any way responsible for the crop. If the purchaser does not accept the goods on these terms they are at once to be returned.

Forward by P. O. Money Order \$.....
(State on this line whether wanted by Mail, Express or Freight.)

Your Name **Exp. Money Order \$**

Postoffice Notes and Silver \$.....

County Postage Stamps - \$.....

State Total - - \$.....

Express or
Freight Office Date....., 19.....

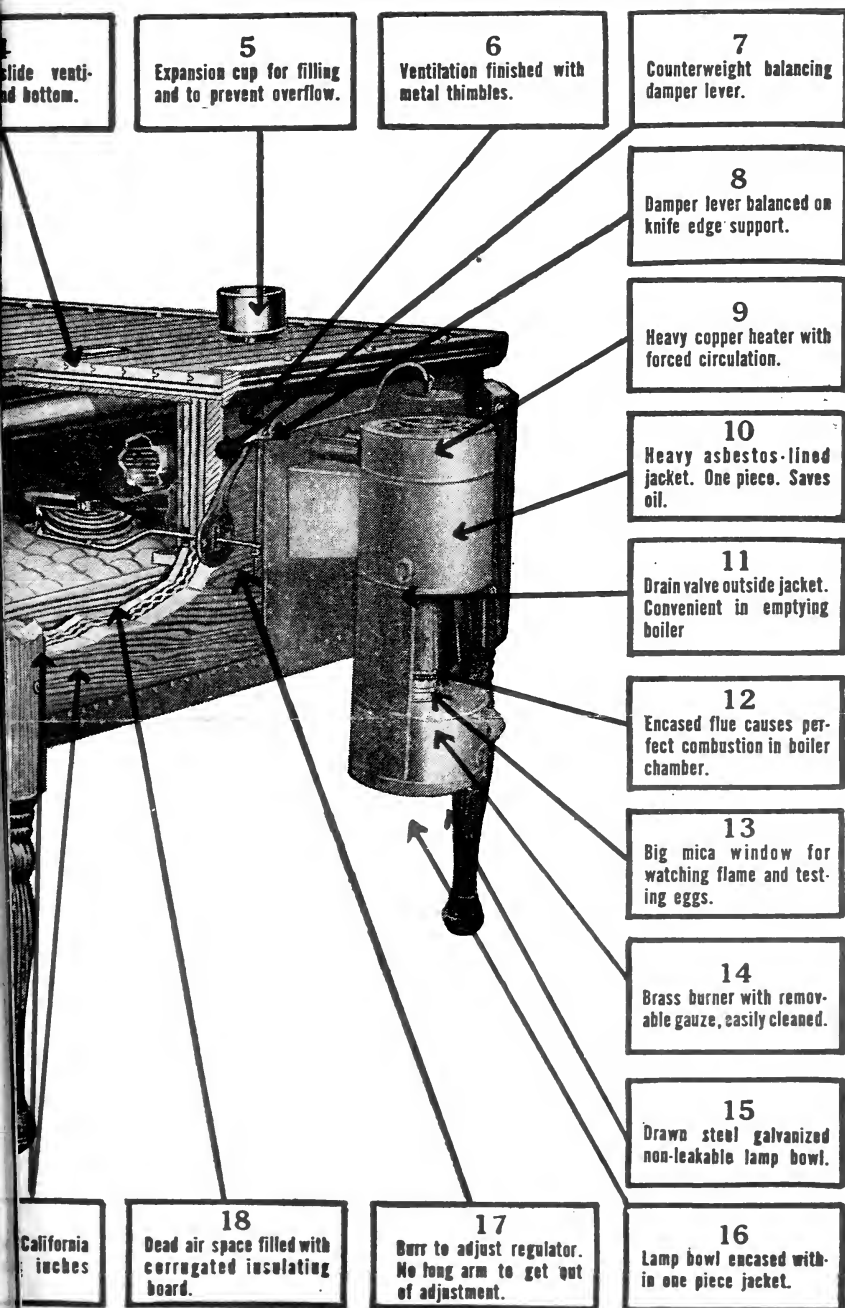
PRICE	
Dollars	Cents
1	00
2	00
3	00
4	00
5	00
6	00
7	00
8	00
9	00
10	00
11	00
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SEE PAGES 1 TO 3 FOR OUR SPECIAL OFFER

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In making your order, please give the price, to avoid delay and error.

Letters—About the Queen



COLORADO
John Bowen of the Colorado Poultry Fanciers' Association, writes:

"Last season the writer installed a Queen as an experiment, and found that it hatched 18% better than eastern made machines and 11% better than any other machine built in the west."

IOWA
Mrs. W. F. Said, Maquoketa, Iowa, writes:

"I have a Queen I have used 2 years. It is a 70-egg size. I hatched 48 chicks from 51 fertile eggs in April this year. I recommend the Queen to everyone."

Mrs. Wm. Corbin, Fruitland, Iowa, writes:

"It is my first time to ever take care of an incubator. I have the 125-egg Queen and out of 115 fertile eggs, I got 108 good strong chicks. Not one cripple."

KANSAS
Mrs. V. E. DeGere, Deerhead, Kan., writes:

"I have had good success with my Queen. Have hatched 13 hatches in my incubator and every one satisfactory."

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"I got one of your incubators last year, and will say that it is one of the best incubators that I have ever had. Ran off four hatches and averaged 98 per cent."

MICHIGAN
C. H. Harnden, Saginaw, Mich., writes:

"I have recently purchased one of your 240-egg machines and I find it to be better than represented. It holds the temperature right to a dot, and that is something that no other machine in our neighborhood will do."

OKLAHOMA
Mrs. Tena Barbour, Bishop, Okla., writes:

"Herewith find enclosed order for another No. 4 Queen. My last hatch was simply fine, 143 chicks from 150 eggs."

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"We used twelve of the 500-egg size Queen Incubators during the past season, and am pleased to state that they gave us very satisfactory hatches of big, healthy chicks—the kind that live and grow."

WISCONSIN

C. D. Adams, Manager Poultry Show, Milwaukee Co. Experiment Assn., Wauwatosa, Wis., writes:

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W. T. Oakley, Silsbee, Texas, writes:

"We have in our family a Queen Incubator that we have had almost 12 years and it gives us as good results as most of the latest models."

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Clement H. Kindersly, Great Falls, Mont., writes:

"I have a 240-egg Queen which I have used for a few seasons. It can't be beat."

You Pick the Queen Incubator

30 Points of Merit and 20 Letters—About the Queen

MASSACHUSETTS

W. V. Field, Shelburne Falls, Mass., writes:
"This spring I bought one of your 100-chick brooders and ran it with 106 chicks without directions. I had grand success and today have some healthy chickens to be proud of."

FLORIDA

Mrs. Thos. Ludlam, Mammonton, Fla., writes:
"I sure had fine luck with the Queen Incubator—got 115 chicks out of 120 eggs. This is my second hatch. People have come far and near to see the sight."

IDAHO

Mrs. C. C. Blake, Pocatello, Idaho, writes:
"An old poultryman told me I had made a wise choice when I selected the Queen. He has 14 different makes at his large poultry plant, both hot water and hot air. He finds hot water machines far superior to the hot air, and the best hot water machine is the Queen."

ILLINOIS

Mrs. Chas. Wicker, Bethany, Ill., writes:
"I am well pleased with results with incubator and brooder. If I ever buy another incubator it will be a Queen. I think the Queen machines are as near perfect as they can be made, and so easy to operate that a child could run them easily."

Mrs. Nannie Leper, Peoria, Ill., writes:
"I bought a Queen of Frank E. Rue, Peoria. This is my first experience with incubators. 119 chicks out of 119 fertile eggs, and all are living."

MINNESOTA

Carl Grothe, Hendrum, Minn., writes:
"Herewith find my order for one 400-egg Queen. I have been a Queen user for 5 years and find them the best and most successful incubators."

SOUTH DAKOTA

Mrs. R. H. Board, Raymond, S. D., writes:
"I am sending you a photo of my chickens hatched from the Queen. I got 88 per cent. Don't think there could be another incubator as good as the Queen."

NEBRASKA

Edw. Hickey, St. Michael, Nebr., writes:
"I have purchased from your agent here, Mr. J. W. Hollingsworth, two of your No. 3 Incubators. These two machines are working to perfection. I do not even have to look at the thermometer to see if they are running right; can tell this by the regulator. I consider your incubator the best hot water machine made."

MISSOURI

M. S. Winner, St. Louis, Mo., writes:
"I bought one of the No. 2, holding 130 eggs, last summer, and I found it did me so much service and good results that this year I am going to try the one holding 240 eggs, which I have bought from the St. Louis Seed Co. I have tried several others and find the Queen the 'queen' incubator."

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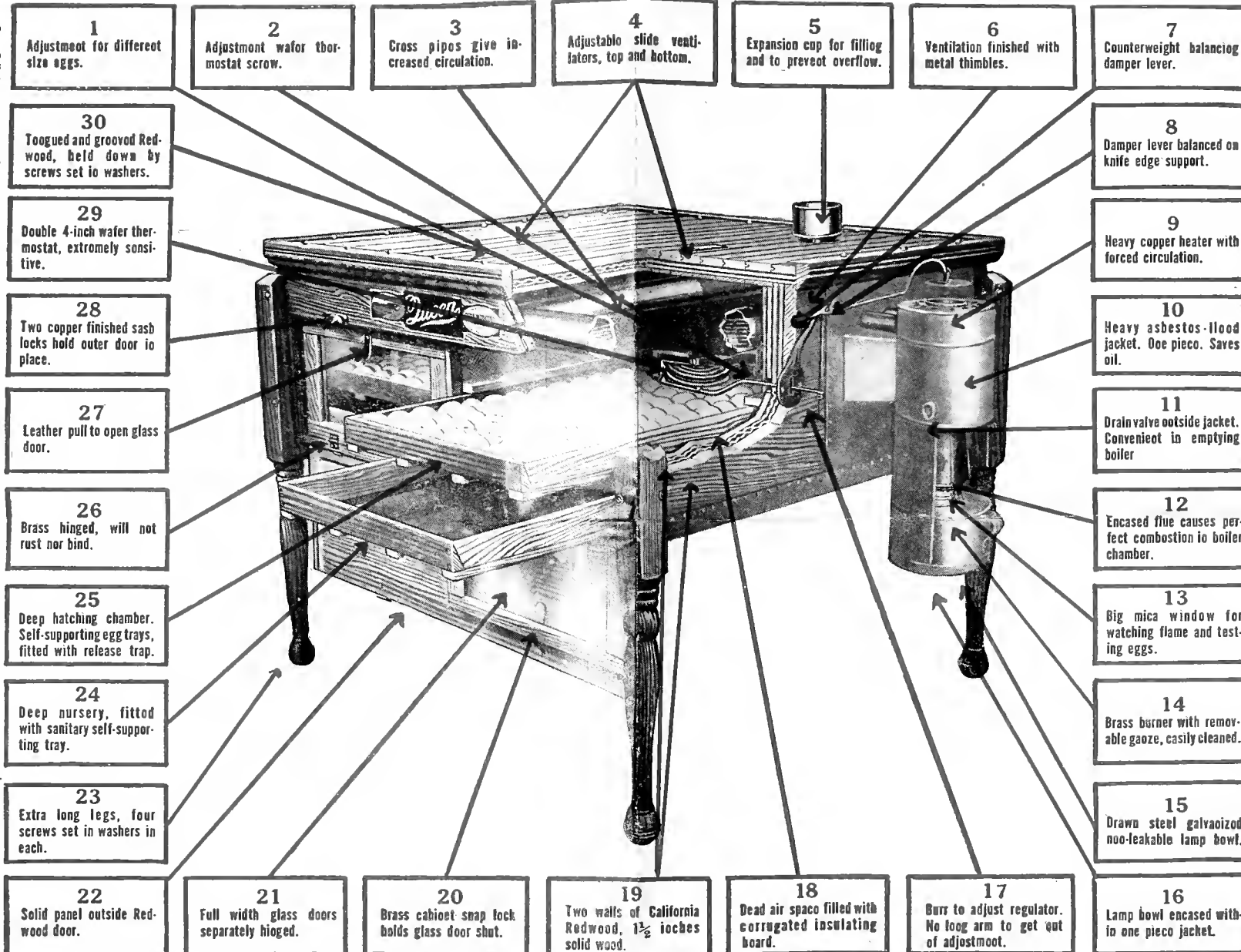
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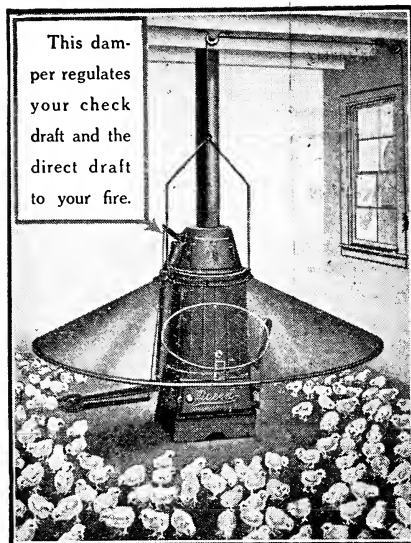
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You Can't Go Wrong When You Pick the Queen Incubator

Queen Brooders



The Queen Colony Brooder is a new and improved design of brooder stove. It is made of highest quality iron castings that will wear and last indefinitely.

There are no drafts on the smoke pipe of the Queen. The check rests on top of the stove and opens outward when fire is too warm, thus giving a gentle inflow of air to retard the heat. While the opening of the draft to increase the fire is located at the top of the stove, it opens into the fire at the base through an opening extending down the side to the bottom. This feeds the draft into the fire from underneath with no opening below the hover.

As will be seen from the illustration, the check and draft lids are cast together and operated together. Thus, when the fire is too hot, the wafer expands and closes the draft and opens the check, both at the same time. When it is too cool the wafer contracts and closes the check and opens the draft. This keeps an even heat all the time, both night and day, in cold weather or warm, and does it automatically. You don't have to pay any attention to it whatsoever. Just set the regulator for the proper temperature at the start of the season—it will do the rest.

Superior Queen Grate

The grate in the Queen stove is the rocker type and strikes the fire at four points. This is far superior to any draw center or shaker grate, because it cleans the fire thoroughly, and by striking at four points will break up and remove all clinkers.

Collapsible Hover

The hover used on Queen stoves is collapsible and made of four pieces of galvanized iron. This hover comes knocked down, with holes punched and stove bolts attached, ready for putting together. By being collapsible, it enables you to save room when storing, and lessens the danger of damage, when not in use.

Burns Any Kind of Fuel

The Queen stove burns any kind of fuel with equally satisfactory results. We recommend chestnut sizes in all kinds of fuel and hard or soft coal, coke, charcoal, or briquettes burn equally well. Of course, hard coal will not cause the pipe to become dirty as quickly as the others, but it will give no better heat.

No. 1—600 Chick size,

No. 2—1200 Chick size,

Queen Outdoor Lamp-Heated Brooders

are designed to raise the chicks in all kinds of weather at any time of the year, with complete protection day and night.

They are made of one-inch, high-grade, thoroughly seasoned hardwood lumber with mortised corners, bound with galvanized iron and covered with two coats of paint.

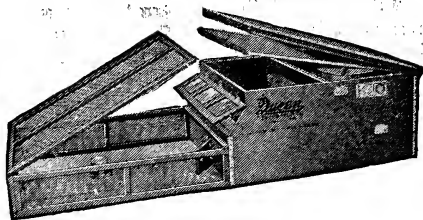
The heating system gives an abundance of heat, distributed properly, while plenty of fresh air is provided automatically without draughts. Brooder has two floors. Under the heating drum the floor is cut away and a galvanized pan substituted, which may be filled with earth or sand.

It is removable and easily cleaned. Upper floor has two compartments—brooding room and sun parlor.

125 Chick size,

165 Chick size,

250 Chick size,



Queen Incubator Co., Lincoln, Neb.

Stop Hatching Weak Chicks

With Cheap Incubators!

A Queen costs but little more, and the extra chicks that live and grow soon pay the difference.

Remember, it is not how many chicks you HATCH that counts, but how many you RAISE. Chicks that hatch out weak and wobbly, and live but a few days, mean nothing to you but trouble and loss. They make one sick of the poultry business.

Most of the chicks you lose in the first few weeks die because they did not have, when hatched, enough strength or vitality for a good start. Queen Incubators are famous the country over for big hatches of strong, healthy chicks that live and grow.

Proper Insulation

The Queen is doubly insulated. First we use double walls of California Redwood, forming a dead air space. Second, corrugated strawboard is used between the wooden walls. Proper insulation adds considerable expense to the manufacturing cost. However, it is an absolute requirement of a good Incubator.

Queen No. 2
135-egg size

Queen Hot Water Heating

The Queen System of hot water heating prevents the drying-out tendencies found in hot air incubators and provides a soft, uniform heat over every part of the egg chamber—a heat that is most natural for the hatching eggs. The circulation of water through the radiator prevents any moisture being added or taken away from the eggs. When it becomes necessary to remove the lamp, the hot water circulating through the radiator maintains an even heat within the egg chamber without the slightest variation.

Built of California Redwood

The Queen is the only Incubator that carries out the double redwood wall construction all around, and provides a double wall front, in the way of two separate doors. The outer door is a solid panel of Redwood that is hinged entirely independent of the inner door and is fastened with a sash lock that draws it tight, thus making the loss of heat impossible.

The inner door is also of redwood construction, containing a panel of glass the full length and height of the egg chamber.

Redwood does not absorb the odor from the hatching eggs. Cheaper woods, and pasteboard lining in iron and tin machines, retain the odors, to weaken and kill the hatching chick.

Queen Incubators are not cheap, but they are cheap in the long run. They will be turning out good hatches years after the cheap machines have been junked.

No. 1—85 egg size
No. 2—135 egg size
No. 3—180 egg size
No. 4—275 egg size

No. 5—400 egg size
No. 25—600 egg size
No. 35—800 egg size

No. 45—1000 egg size
No. 55—1500 egg size
No. 65—2000 egg size
Ask for Free Catalog

STYLE K INCUBATORS

No. 20—70 egg size

No. 21—135 egg size

No. 22—220 egg size

QUEEN INCUBATOR CO., Lincoln, Nebraska

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that corresponds to the distance you are away. Then note where the weight of your package is marked on the table of rates, on the same line

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A Parcel Post package may weigh from 4 ozs. to 70 lbs. for the first, second and third zones—with a 20-pound weight limit for third to eighth zones, and must not exceed in size 84 inches in length and girth combined.
Four ounces or less will be charged for at 1c per ounce or fraction thereof, except on Books, Seeds, Plants, Bulbs, etc., which are 1c for 2 ozs. up to 8 ozs. for any distance.
In British Columbia and Canada the rate on any parcel up to four ounces is one cent per ounce. All parcels over four ounces take the pound rate, which is 12 cents per pound up to 4 pounds 6 ounces.

Weight	1st Zone		2nd Zone	3rd Zone	4th Zone	5th Zone	6th Zone	7th Zone	8th Zone
	Local rate	Zone rate 50 miles	50 to 150 miles	150 to 300 miles	300 to 600 miles	600 to 1000 miles	1000 to 1400 miles	1400 to 1800 miles	Zone All over 1800 miles
1 pound					\$0.07	\$0.08	\$0.09	\$0.11	\$0.12
2 pounds					.11	.14	.17	.21	.24
3 pounds					.15	.20	.25	.31	.36
4 pounds					.19	.26	.33	.41	.48
5 pounds					.23	.32	.41	.51	.60
6 pounds					.27	.38	.49	.61	.72
7 pounds					.31	.44	.57	.71	.84
8 pounds					.35	.50	.65	.81	.96
9 pounds					.39	.56	.73	.91	1.08
10 pounds					.43	.62	.81	1.01	1.20
11 pounds					.47	.68	.89	1.11	1.32
12 pounds					.51	.74	.97	1.21	1.44
13 pounds					.55	.80	1.05	1.31	1.56
14 pounds					.59	.86	1.13	1.41	1.68
15 pounds					.63	.92	1.21	1.51	1.80
16 pounds					.67	.98	1.29	1.61	1.92
17 pounds					.71	1.04	1.37	1.71	2.04
18 pounds					.75	1.10	1.45	1.81	2.16
19 pounds					.79	1.16	1.53	1.91	2.28
20 pounds					.83	1.22	1.61	2.01	2.40

WAR TAX

On Packages requiring 25c Postage add 1c Tax; on 26c to 49c add 2c Tax; over 49c add 1c for every 25c or fraction thereof.

The Inland Seed Co

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Golden
Bantam
Idaho
Grown
*See Description
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WASHINGTON